

textile

FEBRUARY 15, 1946

bulletin

A newly-developed attachment, the card sliver reducer, has caused a good deal of discussion in textile manufacturing circles. Read about it on Pages 33 and 34 of this issue.

SOURCE OF TROUBLE

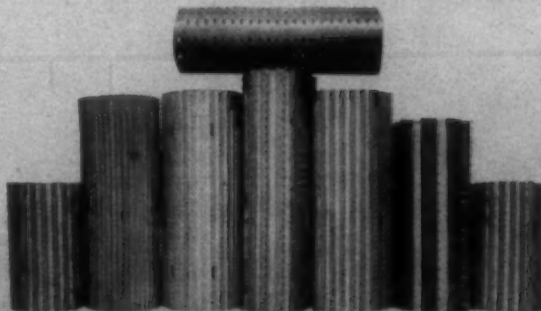
Difficulties in subsequent manufacturing processes may often be traced back to the Opening Room. Inadequate cleaning of the cotton can cause plenty of grief all down the line.

It is important therefore that pickers should operate at maximum efficiency, and this is impossible unless the machines are equipped with **DEPENDABLE APRONS**.

The quality materials and careful workmanship that go into every textile apron made by this company show that we realize the importance of the particular function which this equipment performs.

RESEARCH IN SOCIAL SCIENCE
BOX 539
CHAPEL HILL N C 2644 G
★ JULY 46

★
OUR APRONS
LAST LONGER AND
DO THE JOB BETTER
★



★
QUICK DELIVERY
FOR STANDARD PICKERS
FROM STOCK
★



ADVERTISING
INDEX—PAGE 63

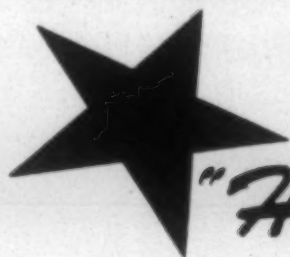
TROY WHITEHEAD MACHINERY COMPANY

Phone 3-9831

CHARLOTTE, N. C.

P. O. Box 1245

"THREE STAR" LEATHER BELTING

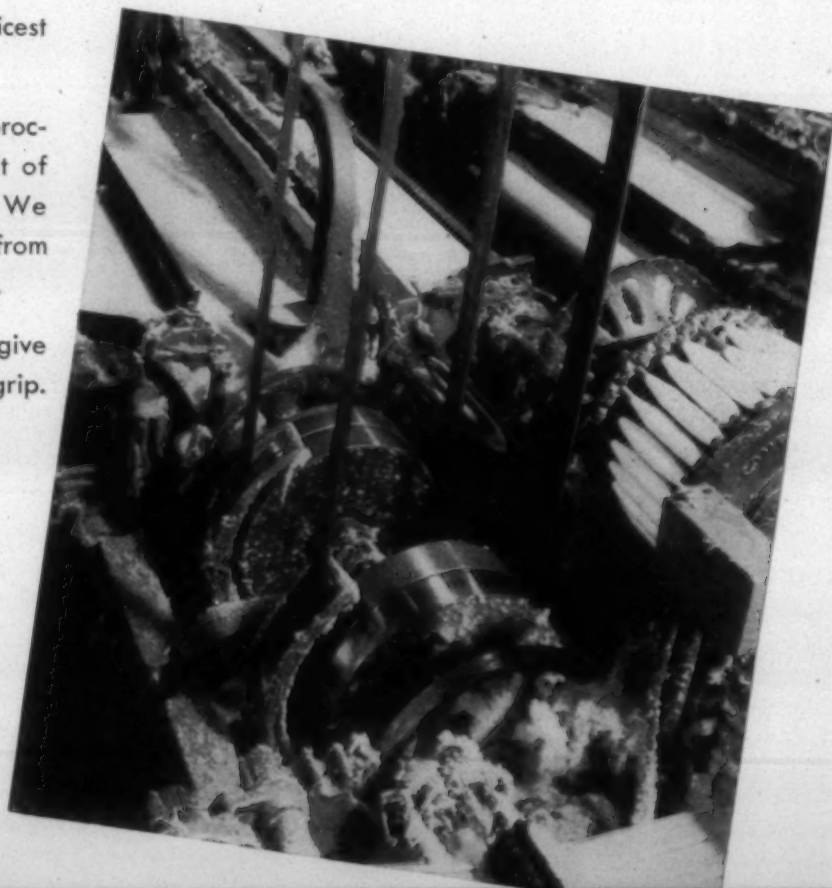


"Has what it Takes!"

You buy belting with the expectation that: ★ It will prove **STRONG**.
★ It will grip the pulley firmly. ★ Will be practically "stretch-proof."

"THREE STAR" Leather Belting has these desirable characteristics in the fullest possible degree because:

- ★ It is made of the choicest quality leather.
- ★ Is correctly tanned by a process perfected as a result of 78 years' experience. We control every process from hide to the finished belt.
- ★ Is properly curried to give strength and positive grip.



A Corner of a
Textile Mill showing
"3-Star" in
Service

CHARLOTTE LEATHER BELTING CO.

CHARLOTTE, NORTH CAROLINA



COMMERCIAL FACTORS CORPORATION

Fred'k Victor & Achelis, Inc.
Established 1828

Schäfer, Schramm & Vogel
Established 1838

Peterls, Buhler & Co., Inc.
Established 1893

TWO PARK AVENUE, NEW YORK

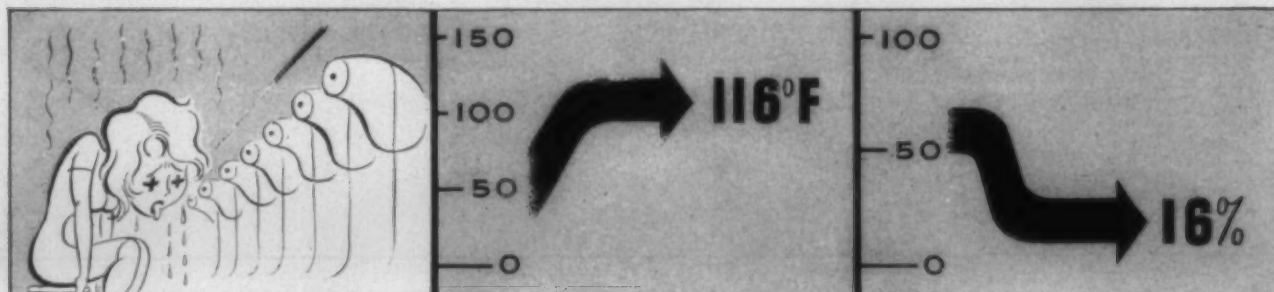
EUGENE G. LYNCH, 80 FEDERAL STREET, BOSTON, MASS.
T. HOLT HAYWOOD, WINSTON-SALEM, NORTH CAROLINA

3 STEPS TOWARD ALL-TIME-HIGH OUTPUT

(TYPICAL MILL EXPERIENCE)

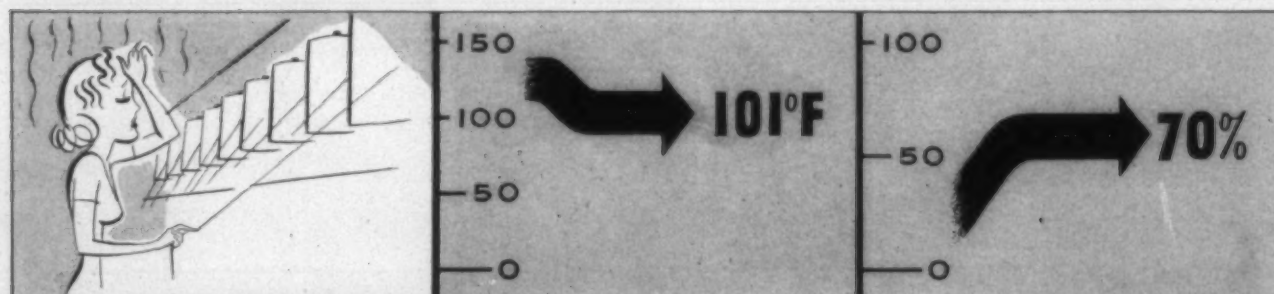
TEMPERATURES

HUMIDITY



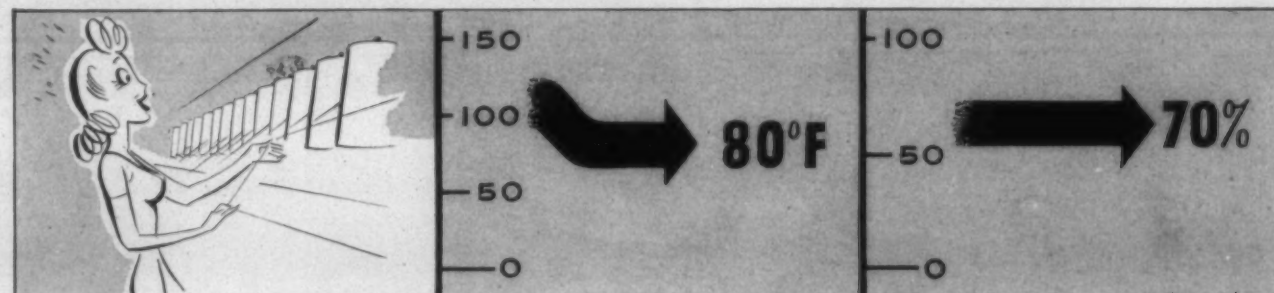
1. NO HUMIDIFICATION — NO TEMPERATURE CONTROL With temperature *high* and humidity *low* the work quality and worker efficiency were poor.

RESULT:
Poor Quality. Low Production.



2. WITH ADEQUATE, CONTROLLED HUMIDITY An AMCO Humidification System raised humidity from 16% to 70% and kept it there. The quality improved, but the worker still tired easily with temperature at 101° F.

RESULT:
Improved Quality.
Increased Production.



3. WITH HUMIDITY AND TEMPERATURE BOTH CONTROLLED Addition of an AMCO Evaporative Cooling System held humidity to the ideal 70%, also dropped temperature to 80° F.

RESULT:
Top Quality. Top Production.

In the Amco Evaporative Cooling System, relative humidity is raised by introducing atomized water spray and frictional heat is absorbed by evaporation of the moisture, made practical by carefully controlled air-flow.

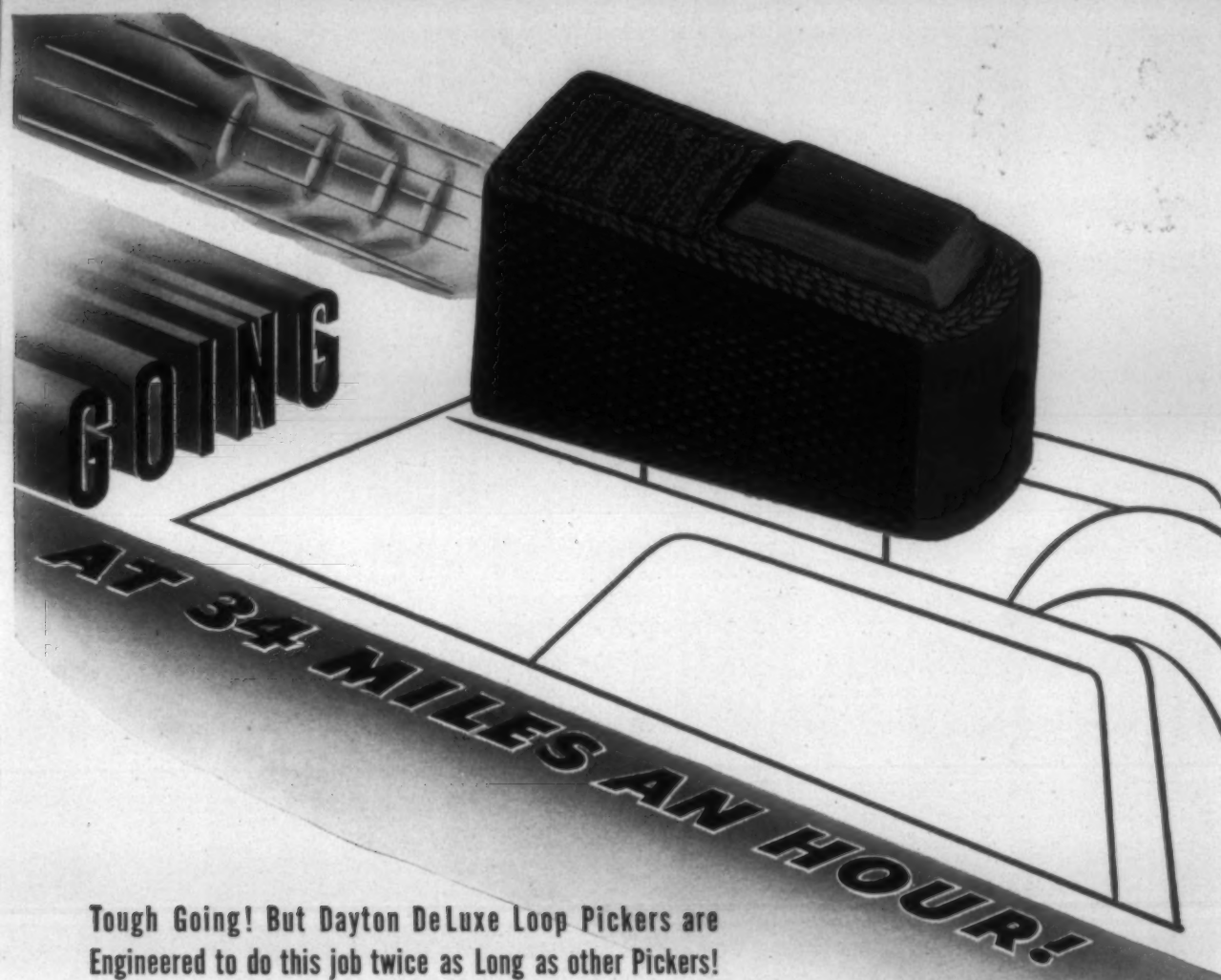
This typical experience, with outside temperature 90° F. and relative humidity 33%, demonstrates clearly that good machines and willing workers are

not enough. Reducing excessive temperature and holding humidity at the point best suited to fibre and process and the workers' comfort are important in a dollars and cents way.

An AMCO engineer can tell you how you can modernize your plant, by installing this automatic temperature and humidity control, to get the speeds and output needed to meet competition.

AMCO EVAPORATIVE COOLING SYSTEMS

AMERICAN MOISTENING COMPANY, PROVIDENCE, R. I. • BOSTON • ATLANTA • CHARLOTTE



Tough Going! But Dayton DeLuxe Loop Pickers are Engineered to do this job twice as Long as other Pickers!

It's a terrific impact . . . the impact of picker against shuttle . . . a blow that is repeated as many as 85 times a minute. Such impacts of the highest speed looms, however, are easily taken in stride by Dayton DeLuxe Loop Pickers.

Reason for their exceptional stamina is their special construction. The face-block has precisely the proper cushion, resilience, and durability; is anchored in, and vulcanized to stay. It can't buckle or distort. And the face is flared, and shaped to guide the shuttle into the body of the picker.

The loop holds, too. Its tapered hole with rounded corners fits tightly, and has no expansion; so Dayton's don't "work up". They maintain throughout many months of service, the correct position for perfect shuttle throw.

Hundreds of users have found that they can save up to 50% on picker costs by adopting Dayton DeLuxe Loop Pickers. You, too, can benefit by using Daytons. Write today for all the facts on this specially engineered picker.

THE DAYTON RUBBER MANUFACTURING COMPANY

Factory—Waynesville, N. C.

MAIN OFFICE: WOODSIDE BLDG., GREENVILLE, S. C.

IMPORTANT REASONS WHY YOU SHOULD STANDARDIZE WITH DAYTON DELUXE LOOP PICKERS

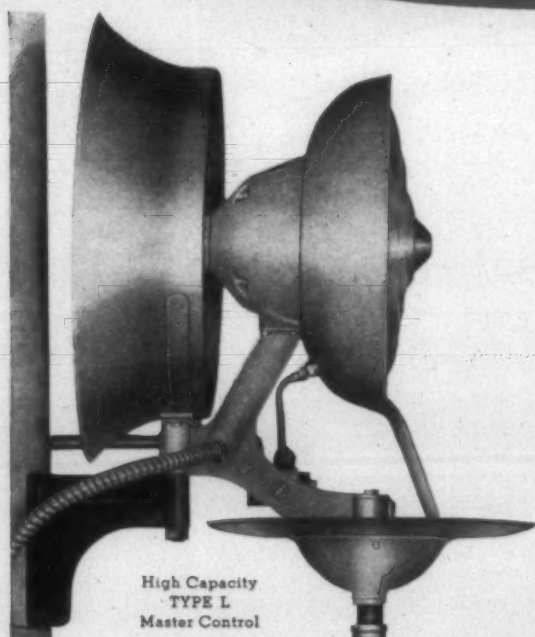
1. Greater strength for double life.
2. Resilient construction for proper cushion.
3. Flared bottom for protection when applied.
4. Rounded front corners to reduce roughness.
5. Perfect fit for easy application.
6. Precision mold to retain shape and fit stick.

Dayton Rubber

FAMOUS DAYCO SYNTHETIC RUBBER PRODUCTS SINCE 1934

Automatic Humidity Control

WITH DIRECTIONAL AIR FLOW
(Bahnson Open Head Unit)

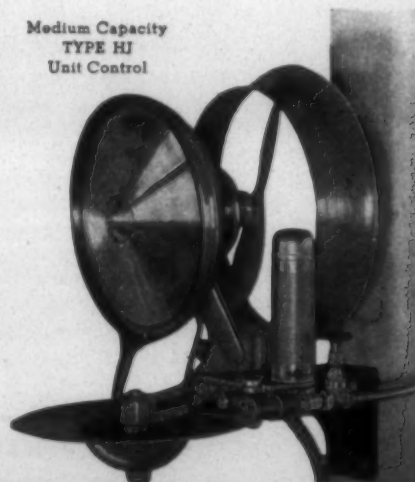


High Capacity
TYPE L
Master Control

The Bahnson Humidifier combines in one unit the four basic requirements of industrial humidification that have proven especially successful.

1. Atomizes water into a fine mist.
2. Diffuses the mist with room air until completely absorbed.
3. Distributes resulting humidified air uniformly throughout room.
4. Automatically controls the evaporation to maintain a constant relative humidity.

Medium Capacity
TYPE HJ
Unit Control



ECONOMY of installation, operation and maintenance are basic principles of the Bahnson Centrifugal Humidifier. No auxiliary equipment is required. A fractional h. p. motor supplies centrifugal force to atomize water and operate the fan which circulates vapor. All parts are easily accessible, and corrosive resistant.

FLEXIBILITY in both installation and control are features peculiar to the Bahnson Unit. Each unit is self-contained, and permits of factory changes, additions, alterations, etc. Units can be individually controlled or connected to a Master Control. Evaporative capacity range is from 0 to 12 gallons of water per hour per unit.

SIMPLICITY of design is permitted because of the exclusive Bahnson Principle of Centrifugal Humidification in one self-contained unit.

COMPLETE ENGINEERING AND SERVICE

DEPARTMENT FOR CONSULTATION

Bahnson System
AIR CONDITIONING ENGINEERS

THE BAHNSON CO

WINSTON-SALEM, N. C.

886 Drewry St., Atlanta, Ga.

93 Worth St., New York City
W. J. Westaway Co., Ltd., Hamilton, Ontario

703 Embree Crescent, Westfield, N. J.

553 S. Figueroa St., Los Angeles, Cal.
A-3 Virginian Apts., Greenville, S. C.

GET READY

Super High
Speed Looms

Are you preparing proper operating conditions for
your New Super High Speed Looms?

Check List for Mill Executives

- ☐ Loom stoppage Tests on your Present Looms
- ☐ Humidity and Temperature Controls
- ☐ Slasher Operating Conditions—Particularly Automatic Controls
- ☐ Yarn Quality—Check Stoppage Test Report
- ☐ Uniform Filling Packages
- ☐ Training Loom Fixers

GET THE FACTS—To Point the way to Improved
Methods and Increased Production

Let's Talk It Over

Series
X

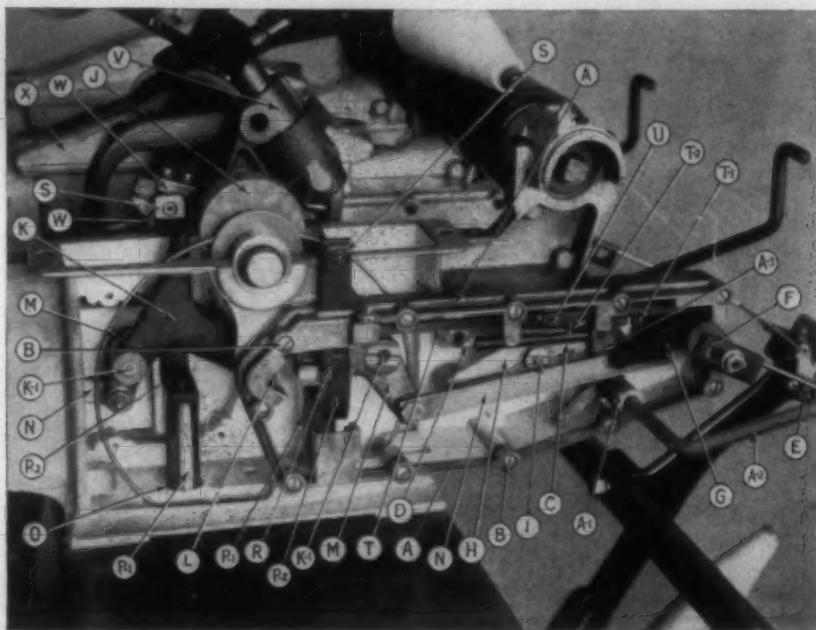
DRAPER CORPORATION

Hopedale Massachusetts

THIS IS NO. 55 OF A SERIES ON

GETTING THE MOST FROM WINDING

Information about winding designed to show improvements in winding equipment and new ideas in the winding operation



A. Starting Handle and Frame Cover Assembly; B. Frame Cover Screws; C. Starting Handle Lever Spring; D. Starting Handle Lever Spring Pin; E. Breakage Lever; F. Breakage Lever Clamps; G. Breakage Lever Pawl; H. Breakage Lever Pawl Trip Lever; I. Clip; J. Cam; K. Cam Yoke; L. Cam Yoke Shaft; M. Cam Yoke Shaft Lever; N. Cam Yoke Shaft Lever Link; O. Dashpot; P. Dashpot Plunger and Link; R. Lower Dashpot Link Stud Block; S. Upper Dashpot Link Stud Block; T. Dashpot Link Lock; U. Dashpot Link Lock Spring; V. Spindle Holder Bearing; W. Spindle Holder Bearing Plate; X. Frame Cap.

*Identical parts.

No. 44 Roto Coner* Frame cut away to help identify parts.

REMOVING STARTING HANDLE AND FRAME COVER ASSEMBLIES (Roto-Coner*)

(1) Remove Frame Cover Screws B (SC-1702CA). There are 11 such screws in each cover.

(2) Loosen Starting Handle Collar A-1 and move away from cover. Push Starting Handle A-2 into the Frame about one inch, so that the cover can be moved away from the Frame and tipped as required in the next instruction.

(3) Holding Starting Handle A-2 in right hand and the cover in the left hand, gently free the assembly and tip it clockwise so that the Lever A-3 welded to the inner part of the Handle will clear the Cam Yoke Shaft Lever Link N. Since Link Lock T and Link Lock Spring U may fall out, watch carefully to avoid losing them.

(4) Remove Starting Handle Lever Spring C from the Pin D; lower the Starting Handle A-2, raise Cam Yoke Shaft Lever Link N and remove cover.

Replacement of the Starting Handle and Frame Cover Assembly is accomplished as follows:

(1) Reshellac the Gasket (44-5), if loose, in order to hold it in place during installation only.

(2) Apply Clips (44-327 and 44-328), as shown in Fig. 3 on page 44-8 of the Roto-Coner* Parts Catalog, to hold the Dashpot Link Lock T in correct position. Make sure that the side of the Lock T having both the square block T-1 and the round pin T-2 is at the bottom. Hook the two ends of the Link Lock Spring U over the round pin T-2 and a pin (not seen in the photograph) that is driven into the cover.

(3) Loosen Starting Handle Collar A-1 and push the Starting Handle A-2 inward.

(4) Pass a thin flexible wire around the outer end of the Breakage Lever Pawl Trip Lever H, and bend it around the bottom edge of the Frame to hold down the Lever.

(5) Raise Cam Yoke Shaft Lever Link N as high as it will go. Hook the Starting Handle Lever Spring C into hole in the Lever A-3 on Starting Handle and over the Starting Handle Lever Pin D.

(6) To lift Breakage Lever Pawl G, press down Breakage Lever E or Breakage Lever Clamps F with little finger of right hand.

(7) Tip the cover slightly clockwise so that the Lever A-3 will pass up under the Link N.

(8) Return the cover to vertical and pass the bearing at the inner end of the cover over the Cam Yoke Shaft L.

(9) Press the cover loosely into position, making sure that Dashpot Link P-2 fits squarely into the slot in the cover.

(10) Remove Clips (44-327 and 328) and withdraw wire from Trip Lever H.

(11) Try Starting Handle A-2 to make sure it works, then replace Frame Cover Screws B (SC-1702CA).

(12) Pull out Starting Handle A-2 snugly and tighten Collar A-1.

*Reg. U. S. Pat. Off.

January 1946

See our Catalog in TEXTILEWORLD YEARBOOK 23.5.13

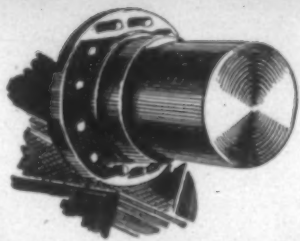
"THERE'S A UNIVERSAL WINDER FOR EVERY TEXTILE NEED"

UNIVERSAL WINDING COMPANY
PROVIDENCE BOSTON PHILADELPHIA UTICA CHARLOTTE ATLANTA

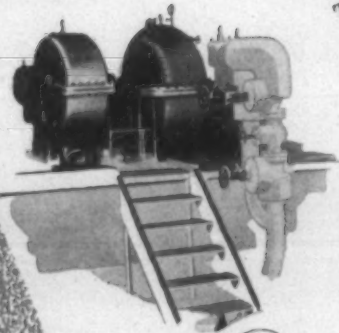
FOR EVERY SERVICE CONDITION...

You can count on

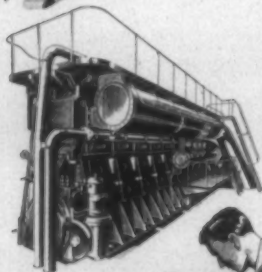
TYCOL "ENGINEERED LUBRICATION"



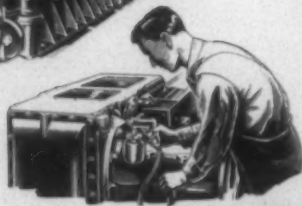
EXTREME PRESSURE GREASE—"Never a single bearing failure since we changed to Tycol E.P. Grease."



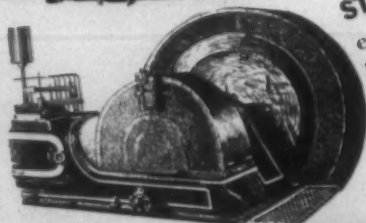
TURBINE OIL—"70,000 hours continuous operation... oil still in excellent condition."



DIESEL OIL—"No more trouble with Sticking Valves... costly delays and overhauls eliminated... engines giving better service..."



NO-RUST-OLS—Prevent rust formations on machines—small parts prior to assembly—and finished products. Usable at all temperatures by spraying, brushing, swabbing or dipping.



STEAM CYLINDER OIL—"We saved 33 1/3% engine lubrication costs when we changed to Tycol Cylinder Oil."

• Results such as these are typical where Tycol lubricants are specified. Call, write or wire your nearest Tide Water Associated office for full details about the lubricant best suited to your needs.

Lubrication—"engineered to fit the job"

Boston • Philadelphia • Pittsburgh • Charlotte, N. C.

TEXTILE BULLETIN • February 15, 1946



**TIDE WATER
ASSOCIATED
OIL COMPANY**

17 BATTERY PLACE • NEW YORK 4, N. Y.

Take the guesswork out of curing
with **PROCTOR EQUIPMENT**

Proctor Loop-Curer, especially recommended for high capacities.

Proctor Roller-Curer, designed for moderate production requirements.

Successful curing is accomplished by subjecting resin treated fabrics to the correct *high temperature*, for the proper time. Since it is in the curing stage that the treatment is either "set" or it isn't, it is impossible to place too much emphasis on the selection of equipment for curing.

UNIFORM TEMPERATURES . . .

Absolutely uniform temperature is required throughout the entire machine for proper curing. Not only that, but proper circulation of heated air is a vital factor. It must be such that not only is the temperature uniformly maintained, but must provide for a proper relative exhaust of air from within the curing chamber.

ACCURATE CONTROL . . .

It is obvious, then, that all factors affecting temperatures, humidity, and circulation must be carefully controlled. The time that goods are in the curer is another factor which must be controlled to the split second, if curing is to be properly accomplished.

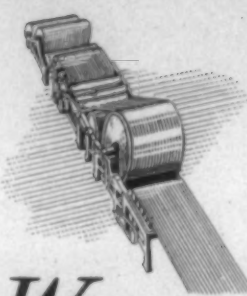
DESIGNED FOR INDIVIDUAL PROBLEM . . .

In curing there is no room for guesswork. That's why it pays to specify Proctor equipment. Each Proctor machine, built for curing, is engineered to meet the requirements of the individual curing problem. Every factor is carefully considered and the machine is designed accordingly. Be sure of your cure. Use the Proctor machine designed and built for you. Write us about your problem today.

P & S

PROCTOR & SCHWARTZ · INC.

PHILADELPHIA 20 · PA ·



● Four centuries ago the Mayan Indians knew almost every weaving method that is known today. They could weave the finest cotton crepe and voile or the strongest cotton canvas. Their fine blankets were woven in strips which were then sewed together.

Today—highly trained laboratory technicians constantly check each step of the processing to insure the uniform quality of Staley Textile Starches. Your guarantee of dependable performance from every shipment. Staley's complete line of unmodified and modified Starches make it possible to select a proper Starch for any sizing formula. Over a quarter-century of service and complete co-operation with the nation's textile mills enables us to help you with your sizing problems.

Weavers of Mexico



Number Seven in a series published as a Tribute to the Development of Weaving through the centuries

In the 16th Century—Montezuma, ruler of the Aztecs, demanded 2,000 decorated cotton blankets as an annual tribute from the conquered Mayans



STALEY STARCHES

A. E. STALEY MANUFACTURING COMPANY
DECATUR, ILLINOIS

ATLANTA
 SPARTANBURG

PHILADELPHIA
 SAN FRANCISCO

DALLAS
 CHICAGO

NEW YORK
 BOSTON

Copyright 1946, A. E. Staley Mfg. Co., Decatur, Ill.

a CHEMICAL for COTTON



1
The
PRODUCT

VIRGINIA HYDROSULPHITE



VIRGINIA HYDROSULPHITE is a concentrated, white, stable, free-flowing, uniformly crystalline powder. 100 lbs. of readily soluble in water. 100 lbs. of water at 68° Fahr. will dissolve 21.8 lbs. $\text{Na}_2\text{S}_2\text{O}_4$.

2
Its
USES

DYEING WITH INDIGO AND VAT DYES: VIRGINIA HYDROSULPHITE has merit as a reducing agent in dyeing with indigo and vat dyes, because of its easy and complete solubility, and carefully controlled particle size. The addition of Virginia Hydrosulphite to dyeing machines in small increments is easily handled because dusting is reduced to a minimum.

DECOLORIZING DYED FABRICS: VIRGINIA HYDROSULPHITE is particularly efficient as a chemical reducing agent for the removal of dye-stuffs from fibres because of its easy and complete solubility, and its controlled particle size.

VIRGINIA HYDROSULPHITE IS advantageously used as a general bleaching agent of soap, sugars, oils, minerals, straw and various fibres. The stronger and more efficient the reducing action, the more complete is the bleaching effect.

SHIPPED in sealed packages, ICC specifications 21-A or 37-E.

Gross weight	269 lbs.
Net weight	250 lbs.
Outside diameter	17 3/4 in.
Outside height	25 in.

SHIPMENT will be made from West Norfolk, Va., in Carload or Less Carload lots; L. C. L. shipments from stocks at Boston, Chicago, New York, Philadelphia, Charlotte and Atlanta.



**VIRGINIA
SMELTING CO.**
WEST NORFOLK, VIRGINIA

BEST

in the Long Run

Universal Standard Ring Travelers cost you less because they give you better service. They're durable, uniform, precision made, with Bowen patented Bevel Edge to insure smooth even yarn. They reach you in perfect condition with full count assured because they come to you in sealed metal containers. Samples on request—write direct or to your nearest representative.

Send your exact requirements for samples which you can use and prove in your own mill. Write direct, or to the nearest representative.



Sealed metal containers guarantee that your U. S. Travelers will be full-count, factory-perfect.

U. S. RING TRAVELER CO.

UNIVERSAL



STANDARD

Providence, R. I.

Greenville, S. C.

AMOS M. BOWEN, President and Treasurer

"Wi
our
oper
Act
We
Serv
look
"W
qua
buy
cost
high
effic
repl
year
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M
app
prot
oxid
degr
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duc
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TEXTILE

"With GULF QUALITY LUBRICANTS

our weave shed has set an

operating record that's hard to beat"

says this **OVERSEER**

*"Our looms have produced 144
hours a week for over 3 years
without needing a part replacement"*

Actual photo of Overseer of Weaving consulting with a Gulf Service Engineer (right) on loom lubrication.

"WE HAVE GOOD REASON to feel that Gulf quality lubricants are the best insurance we can buy against excessive wear and high maintenance costs," says this Overseer of Weaving. "The 100 high-speed looms in our weave shed have produced efficiently 144 hours a week without needing a part replacement since they were installed over three years ago. And today we can see no evidence of wear on any loom."

Modern high-speed looms require the proper application of lubricants that provide maximum protection against excessive wear, and which resist oxidation, gumming, and "throw" to the highest degree. That's why this prominent mill, and many others, specify Gulf oils and greases in the weave shed — through actual experience they know that these quality lubricants help insure continuous production, and reduce spotting, down time, and maintenance costs.

Gulf quality lubricants are available to you through more than 1200 warehouses located in 30 states from Maine to New Mexico. Write, wire, or phone your nearest Gulf office today.



Gulf Oil Corporation • Gulf Refining Company

Gulf Building, Pittsburgh 30, Pa.

**EXCEPTIONALLY FINE LUBRICANTS
FOR THE TEXTILE INDUSTRY**

Big News for Cotton and



THE PERFECTING of superior synthetic materials for belts in high-draft spinning has now minimized the maintenance problem in belt systems. Therefore we feel that the present is an appropriate time to add a belt system to our line of high-draft cardroom and spinning machinery.

This belt system will be *in addition* to our well known 4 roll long draft spinning and 5 roll scroll condenser systems, which we will continue to

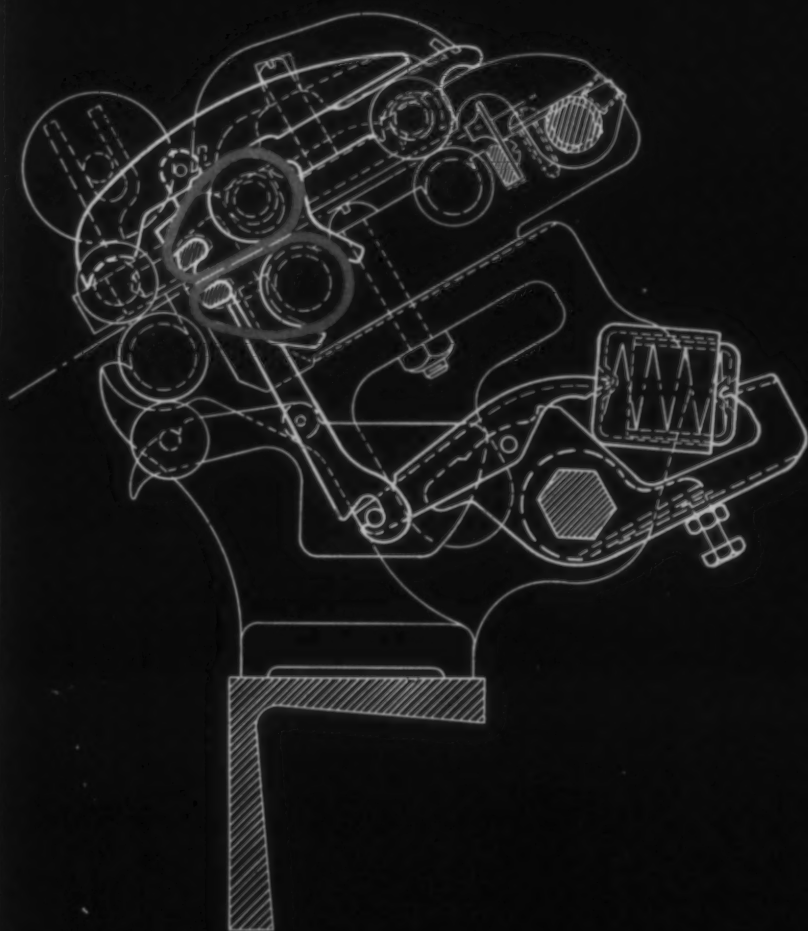
recommend when they seem more suitable for the job.

In adding the belt system to our family of long draft we were satisfied with nothing but the best. Therefore we have obtained manufacturing rights for the Casablanca High Draft Systems. This company specializes in high drafting and nothing else and has continually perfected their system over a period of years.

H & B AMERICAN

and Rayon Spinning Mills

H & B CASABLANCAS IMPROVEMENTS



NEW TYPE CRADLE

This cradle is specially designed for delicate and even handling as well as for the closest fiber control, resulting in stronger and even yarn.

AUTOMATIC WINDING

This method of winding has been developed by one of the leading textile machinery makers as "a winding step forward in the design of even winding machines". Its positive results have proved to be better than those obtained by conventional weight and cone methods.

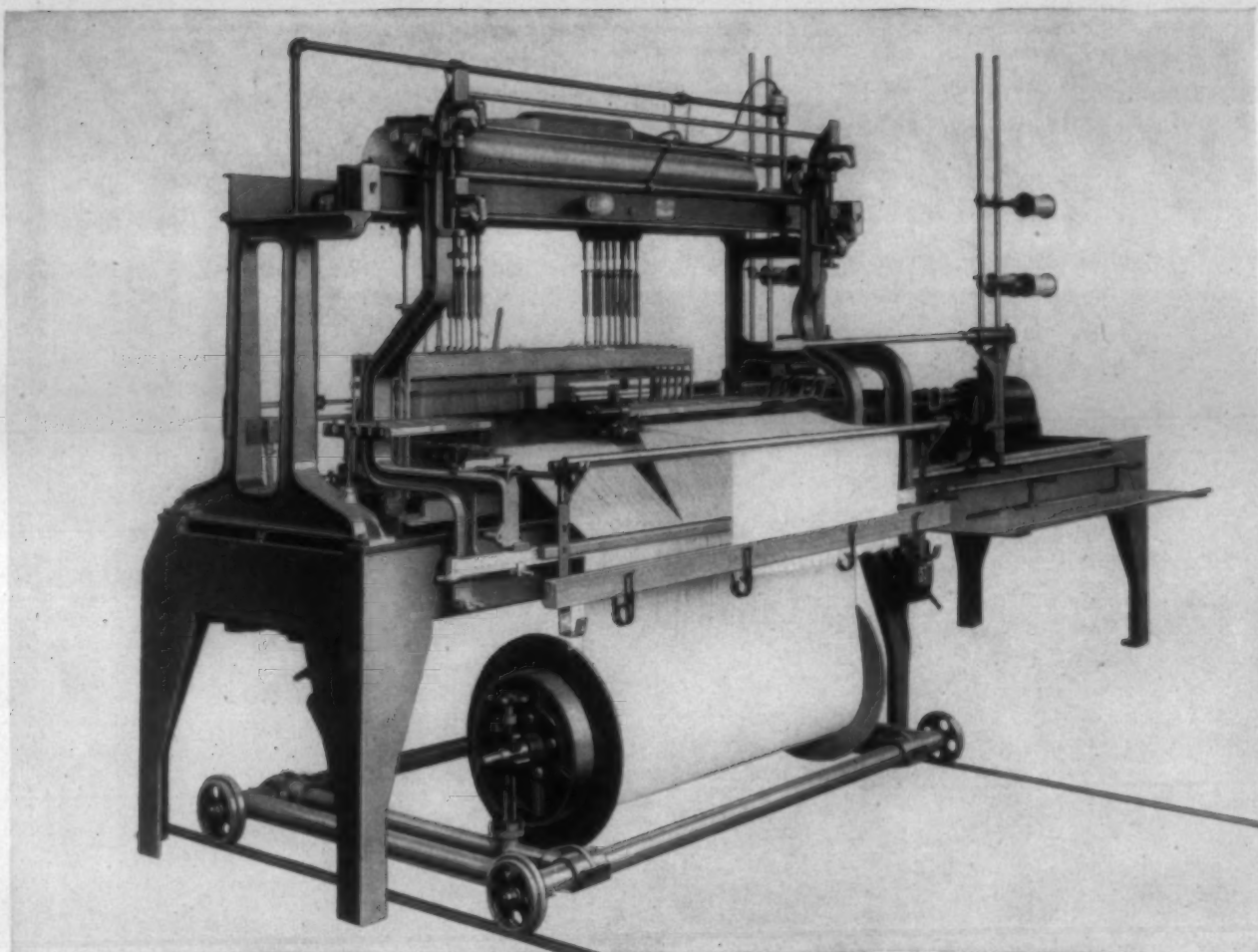
We know better
the winding
operation
making on the roller
frame.
the weights or weight
cone.

We can also offer you the best system for your individual requirements. This is a matter which can best be decided on by consultation with our engineers.

Write to day an explanation of your requirements, the objectives.

PARROT, R.L. U.S.A.

PARROT, R.L. 100 Boulevard Saint
Louis, 100 Boulevard Saint
Louis, 100 Boulevard Saint
Louis, 100 Boulevard Saint
Louis, 100 Boulevard Saint



GREATER CAPACITY FOR DRAWING-IN WORK

This new Barber-Colman Drawing-In Machine provides greater capacity to handle high sley warps and fancy patterns characteristic of modern goods. The machine is made in several sizes and capacities up to a maximum of 120" reed width to draw up to 24 harnesses, 8 banks of drop wires, and reed. It can be used on rayon, cotton, or wool — and therefore is applicable in all types of weaving mills. The machine is fast, and the correct heddle is automatically selected for each end according to a punched sheet-metal pattern strip. In rayon mills espe-

cially, where frequent harness-cleaning is a necessity, this machine will effect substantial savings in time and expense over the slower and costlier method of hand drawing-in. It can handle a wide variety of work, as it is designed to draw warps from a flat sheet, split sheet, double beam, or one and one lease. Flat steel heddles, designed to float freely the full length of the heddle bar, are used. For an estimate showing the savings to be made by use of this machine on the type of work now in your mill, see your Barber-Colman representative.

AUTOMATIC SPOOLERS • SUPER-SPEED WARPERS • WARP TYING MACHINES • DRAWING-IN MACHINES

BARBER-COLMAN COMPANY

ROCKFORD • ILLINOIS • U. S. A.

FRAMINGHAM, MASS., U. S. A.

GREENVILLE, S. C., U. S. A.

MANCHESTER, ENGLAND

"SECO
to, wear
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differe
them.

YOU
perce
"firsts"
are de
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perien

U
TEXTIL



Upgrade your Profit-Stealing "Seconds" with U S SHUTTLES

"SECONDS" cost you just as much to weave as first quality fabrics, but you're out of pocket a considerable difference in price when you sell them.

YOU CAN UPGRADE a gratifying percentage of your "seconds" to "firsts" by making sure your shuttles are designed to maintain top-grade quality without sacrifice of production speed.

U S SHUTTLES are the choice of so many successful mills because they are designed and produced by U S shuttle specialists whose fund of experience dates back through 88

years of close cooperation with leading loom manufacturers.

U S AUTOMATIC LOOM SHUTTLES are precision engineered for positive threading—prevent the degrading caused by mispicks and bad transfers. U S Shuttles for shuttle-changing looms are accurately matched in sets to the closest possible limits of tolerance in all tests for dimensions, weight, and balance.

LOOK TO U S for your present shuttle requirements, and for tested refinements in shuttle design and performance to match every improvement in loom design, as it comes along.



A U S SALES REPRESENTATIVE from the office near you is thoroughly familiar with all types of fibers and textile processes, and can offer you experienced advice. Let him help you in choosing Shuttles, Bobbins, Cones, Rolls, Spools, or other U S Products.

U S BOBBIN & SHUTTLE CO.
PROVIDENCE, R. I. LAWRENCE, MASS. JOHNSON CITY, TENN.
GREENVILLE, S. C. CHARLOTTE, N. C.
CHICAGO AGENT: CANADIAN AGENT: ALABAMA AGENT:
Albert R. Breen, W. J. Westaway Young & Vann Supply Co.
80 E. Jackson Blvd. Montreal, Que. — Hamilton, Ont. Birmingham



SMITH-DRUM...

... OFFERS THE ONLY SPECIFICALLY DESIGNED TO HANDLE Y

HERE, FOR THE FIRST TIME, is a completely integrated system especially designed for preparing, dyeing, extracting and drying yarn in package form. Each machine is the result of extensive research and experimentation to develop the best design for the specific purpose of handling packages . . . to eliminate the disadvantages of other types of machines and to provide many new advantages. This system results in faster, more uniform work . . . cuts costs . . . reduces labor.

FORMULATING . . . This machine dyes a single package and is designed for laboratory use in determining the approximate formula to be used in the larger batch machine. It provides more accurate control of the formula, because the sample is dyed under exactly the same conditions as the complete batch.

FORMING . . . This machine properly prepares the package for dyeing by crimping the edges of the package to aid penetration of the dye liquor at that point.

DYEING . . . This machine, introduced by Smith-Drum several years ago, has completely revolutionized package dyeing. An entirely new type of package carrier and a radical departure in spindle design reduces resistance to flow, providing much greater flow of liquor through each package than the conventional types of machines. This greatly in-

FORMULATING



FORMING



Complete System

YARN IN PACKAGE FORM

creases the speed of dyeing and improves uniformity of results.

EXTRACTING . . . This brand new Smith-Drum machine reduces moisture content to 42% in 70 seconds running time! This means a big saving in both steam and electricity in the drying process. It also reduces labor costs by simplifying loading and unloading so that even a girl can operate it. Complete cycle, including loading and unloading, is only 2 minutes. The machine

also reshapes the package and prevents crushing of dye tubes.

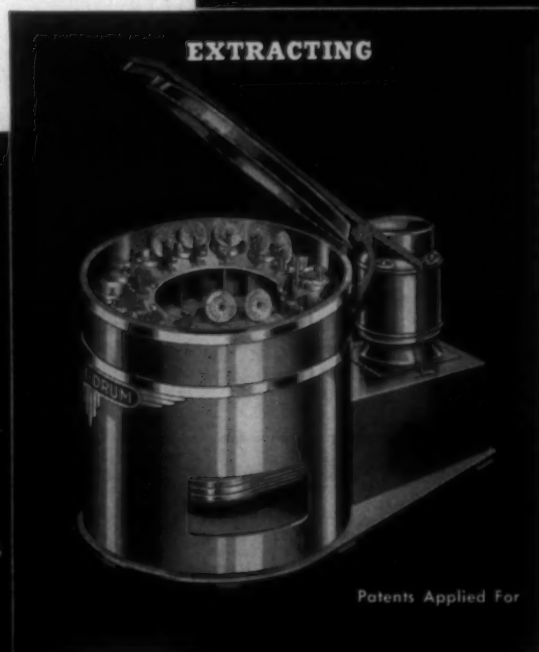
DRYING . . . Another new Smith-Drum development, employing a new principle in package drying. Cuts drying time as much as 75% . . . saves up to $\frac{1}{2}\text{¢}$ per pound of yarn! It uses less electricity . . . prevents migration of color . . . eliminates salt deposits. Yarn is delivered in better condition because of short drying cycle. Drying is more uniform than by other methods.

Complete information on any or all of these machines will be sent to you promptly upon request.

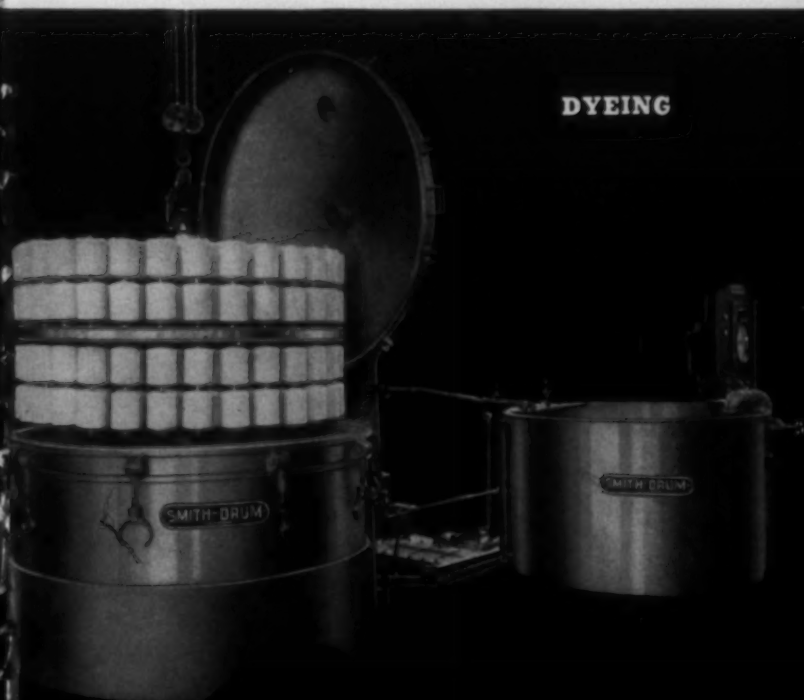
SMITH, DRUM & COMPANY
Allegheny Ave. at 5th St., Philadelphia 33, Pa.



Patents Granted and Pending



Patents Applied For



Patents Granted and Pending

RAYON REPORTS

Published Monthly by American Viscose Corporation, New York, N. Y.

FEBRUARY, 1946

BETTER SERVICE TO THE TEXTILE INDUSTRY GOAL OF AVC RESEARCH REFRESHER COURSE



Warp ends of rayon yarn being inspected as they enter a two-bar tricot knitting machine ... one of many full-sized machines in the AVC Textile Research Department at Marcus Hook, Pa.

To bring returning AVC veterans up to the minute on recent developments in rayon, "refresher" courses are now being conducted by The Educational Branch of the Textile Research Department at Marcus Hook, Pa. These courses, also open to executives of the company, cover a variety of subjects based on the background and objective of the individual trainee.

The principal aim of these courses, which last from one to four weeks, is to enable AVC personnel to render better service to the textile industry.

FIVE 1945 AD. CAMPAIGNS AVAILABLE IN BOOKLETS



Booklet-form reprints of five phases of AVC's 1945 advertising program are now available. Specific titles should be requested in writing to American Viscose Corporation, 350 Fifth Avenue, New York 1, N. Y. The booklets are:

"Reporting to our Neighbors"—advertisements addressed to AVC plant communities.

"Rayon Tells its Story to the Public"—a series showing how rayon, through research, grows constantly more important to our everyday life.

"CROWN" Tested Merchandise Highlights—a series addressed to both the public and the trade, featuring merchandise of CROWN Tested fabrics.

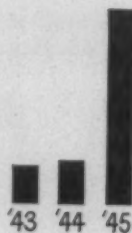
"True Stories About Untrue Ideas"—actual incidents in retail selling.

"CROWN" Tested Case Histories of 1945"—addressed to the textile trade. They explain the CROWN Tested plan's operation, with examples of new fabrics brought out under the plan.

MARCUS HOOK EXPANSION

New spinning machines—and the refitting and modernizing of existing equipment—are the main objectives of a modernization program that AVC is carrying out as rapidly as possible at its Marcus Hook, Pa., plant, it has announced. The plant produces rayon yarns for men's and women's clothing, for home furnishing materials, and for tire cords.

FIVE-FOLD LINEAGE INCREASE



lines compares with 369,432 in 1944, and 307,944 in 1943.

Advertising featuring "CROWN" Tested rayon fabrics, placed by retailers in daily and Sunday newspapers in 1945, increased five times over total agate lines run in 1944, according to reports of the Advertising Checking Bureau. The 1945 total of 1,705,382

RAYON—20 YEARS AGO



Rayon from insect shells is news, Chitin, a substance from beetles and grasshoppers, and shells of crabs and lobsters, is being tried for spinning solution.



"Made in U.S.A." appears for the first time on much mechanical equipment being supplied to American rayon manufacturers.



A surprise to many mills adapting rayon to new textile uses is the fact that rayon is not subject to weighting.

MAKE USE OF 4-PLY SERVICE

- 1 PRODUCT RESEARCH**
Helps you get the right yarn or fiber.
- 2 FABRIC DEVELOPMENT**
Helps you design new fabrics.
- 3 TEXTILE RESEARCH**
Helps solve production and finishing problems.
- 4 "CROWN" TESTED**
Helps provide scientific selling facts.

AMERICAN VISCOSER CORPORATION

America's largest producer of rayon

Offices: 350 Fifth Avenue, New York 1, N. Y.; Charlotte, N. C.; Philadelphia, Pa.; Providence, R. I.; Washington, D. C.; Wilmington, Del.

Plants at: Marcus Hook, Pa.; Roanoke, Va.; Lewistown, Pa.; Nitro, W. Va.; Parkersburg, W. Va.; Meadville, Pa.; Front Royal, Va.

*Reg. U. S. Pat. Off.



*Whatever Dame Fashion decrees
anywhere in the world,
National Aniline stands ready
with every class of aniline
dye and color to produce
an unvarying color match.*

*For many, many years we have
served all textile centers here
and abroad . . . in every field
where color is used.*

WHEREVER COLOR IS USED
National Aniline

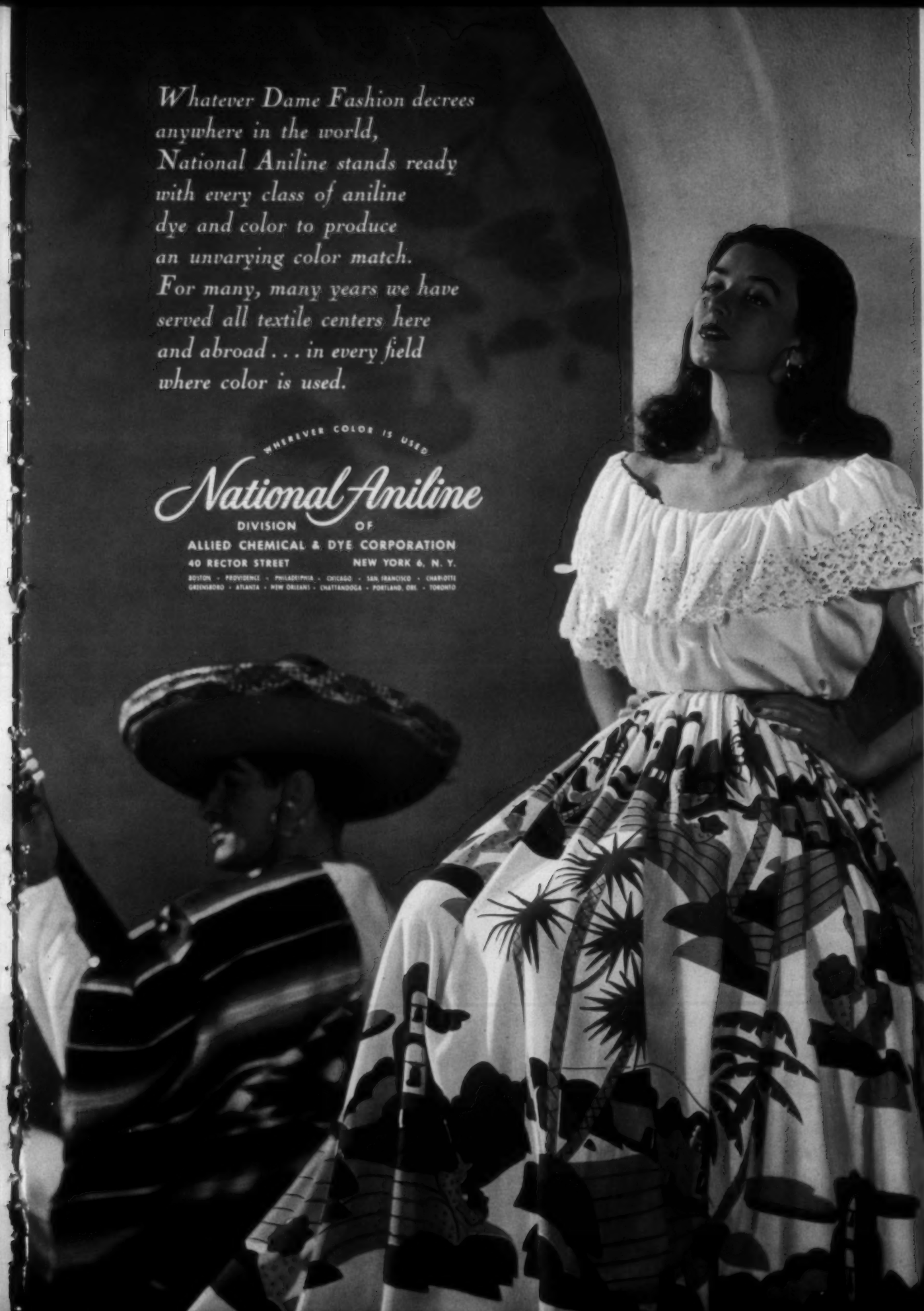
DIVISION OF

ALLIED CHEMICAL & DYE CORPORATION

40 RECTOR STREET

NEW YORK 6, N. Y.

BOSTON • PROVIDENCE • PHILADELPHIA • CHICAGO • SAN FRANCISCO • CHARLOTTE
GREENSBORO • ATLANTA • NEW ORLEANS • CATTANOGUS • PORTLAND, ORE. • TORONTO



Gear Puzzle with a Payoff for your Plant!

Call in
SOCONY-VACUUM
for this Correct
Lubrication Program

- Lubrication Study of Your Entire Plant
- Recommendations to Improve Lubrication
- Lubrication Schedules and Controls
- Skilled Engineering Counsel
- Progress Reports of Benefits Obtained



NO, this isn't an engineer's nightmare! It's our conception of the different types of gears in your plant, linked in a continuous train. Production costs . . . and profits . . . depend on efficient operation of gears like these. Each gear has its own lubrication needs.

Some are ordinary open gears. Socony-Vacuum makes a special "Black Magic" fluid to prolong their life. There's a worm gear. Socony-Vacuum has special oils that stay on despite the wiping, sliding action.

There are herringbone gears, hypoids, bevels and spiral-bevels. Socony-Vacuum engineers have the products . . . and the knowledge . . . to assure scientific lubrication for every type under every condition.

The same applies to all bearings and cylinders. Socony-Vacuum's great new wartime developments, backed by 80 years' lubrication experience, are available in a Complete Lubrication Program for your plant. Insure maximum machine efficiency now with this program.

Socony-Vacuum Oil Co., Inc.

and Affiliates: Magnolia Petroleum Company, General Petroleum Corp. of Calif.

Tune In "Information Please"—Monday Evenings, 9:30 E.S.T.—NBC

See that your Maintenance Man has a complete set of these Data Sheets as issued. Previous Sheets will be sent free upon request.

MAINTENANCE DATA SHEET NO. 3

CALIBRATION OF SCOTT TESTERS (Con.)

In replacing ball bearings in the head, leave about $1/64$ " end play in the shaft; avoid tightening the check nuts too much.

Another cause of low reading may be in the pointer gears. Their teeth, also the bearings of the pinion shaft in the head, should be thoroughly cleaned. If gear teeth show excessive wear, gears should be replaced. In reassembling the head, a very small amount of oil should be placed in the shaft of the pinion and on the teeth of the gears.

Undue friction may be caused by the condition of the chain supporting the upper clamp. This chain should be thoroughly cleaned and re-oiled with a few drops of light machine oil. It should also be checked for undue wear on the points that contact the head drum. The drum should be inspected to make sure that the chain is not causing excessive wear on its surface.

In cleaning the head, the teeth of the quadrant should be cleaned. Inspection may reveal that quadrant teeth have become bent, requiring straightening. The points of the pawls should be inspected to see if bent or dulled.

Special case: In the head of a tester having a guide for the upper clamp, friction can occur where the clamp rod passes through, if the guide has become bent or if the machine is not installed precisely vertical.

Data Sheets 2 and 3 have covered the usual sources of inaccuracy in the weighing head. If satisfactory calibration is not obtained after following these instructions, it is recommended that the head of the tester be returned to the manufacturer.

The many Scott Testers supply the needs of testing textiles, rubber, wire, paper, etc., up to 1 ton tensile.

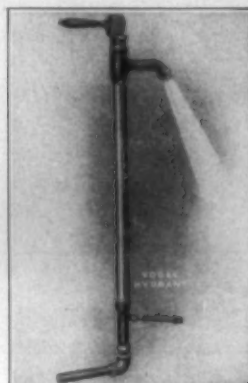
REQUEST "CATALOG & DATA BOOK NO. 45"



SCOTT TESTERS, INC.

115 Blackstone Street • Providence, R. I.

THE VOGEL FROST-PROOF HYDRANT



VOGEL FROST-PROOF HYDRANT

For use in Garages, Yards, Farms, Dairies, Service Stations and all types of installations where an outside supply of water is needed all year 'round. Can never freeze no matter how low the temperature. More than 100,000 in use.

JOSEPH A. VOGEL COMPANY
WILMINGTON 99 DELAWARE

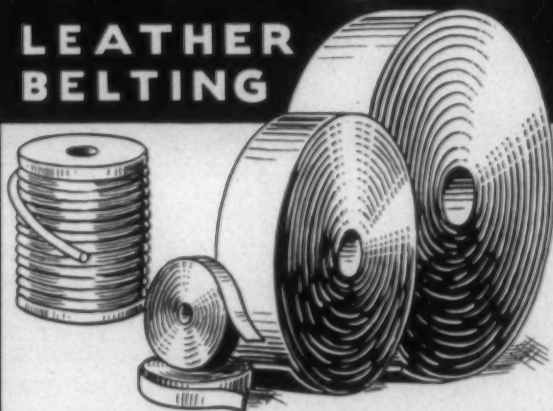
VOGEL

PATENTED

PRODUCTS

PAGE

LEATHER BELTING

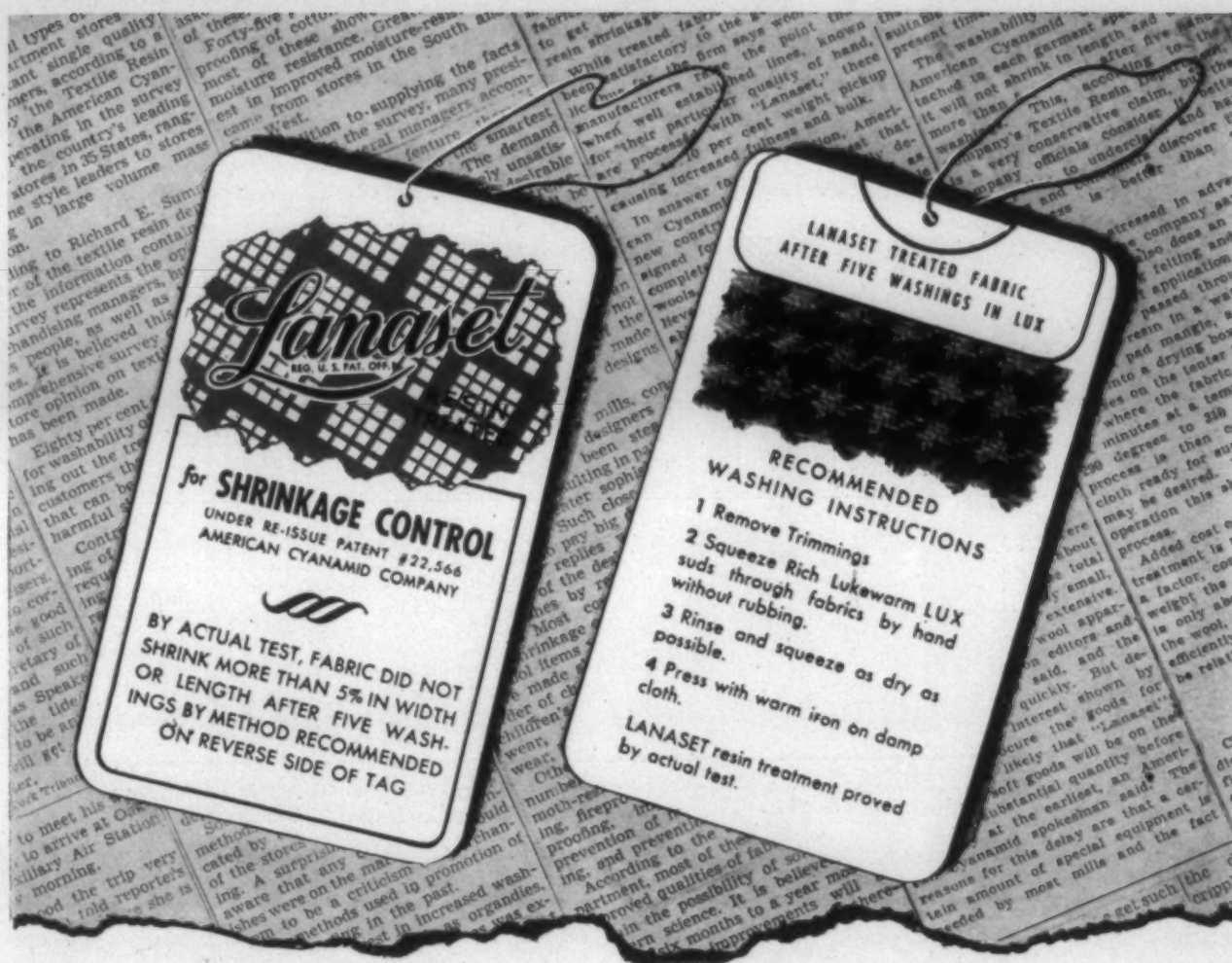


FLAT, ROUND LINK & VEE

Made from the finest
selection of belting hides

Especially constructed for all types of loom drives

PAGE BELTING CO.
CONCORD, N. H., U. S. A.



This tag appears on each Lanaset resin-treated garment.
Fabric sample on back shows result of five washings.

NEWS

MAKING IN WASHABLE WOOLENS

The Lanaset* Resin tag reproduced above is making news throughout the textile industry and retail trade—for it is the symbol of that long desired commodity—"washable woollens."

Lanaset treated merchandise is planned in the fabric development stage, so that cloth construction and finish are economically coordinated to produce best results in weight of fabric and control of shrinkage and felting.

At the same time, resiliency, texture, absorbency and other desirable qualities of the wool are retained through repeated washing or dry cleaning.

This practical method of building the Lanaset finish into the fabric is destined to broaden uses for woollen fabrics in many apparel markets. When designing new fabrics, consult with our technical staff in order to get best results with Lanaset Resin.



AMERICAN CYANAMID COMPANY
TEXTILE RESIN DEPARTMENT
BOUND BROOK, NEW JERSEY

New York • Boston • Philadelphia • Providence • Charlotte • Chicago

*Reg. U. S. Pat. Off.

O N Y X

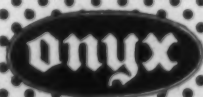
Neufume

FOR PROTECTION
AGAINST GAS FADING

Neufume, an Onyx product of sterling merit, is used by leading finishers with most excellent results, to protect acetate rayon against gas fading. Neufume eliminates department and retail store losses caused by the gas fading of garments and piece goods.

- Economical to apply.
- Does not dull or change fabric color.
- Non-corrosive.
- Applied during finishing operation.
- Used by leading finishers.

*It will pay you to investigate Neufume.
Write for samples and demonstration.*



ONYX OIL & CHEMICAL COMPANY

JERSEY CITY, N. J.

CHICAGO

PROVIDENCE

CHARLOTTE

In Canada: Onyx Oil & Chemical Co., Ltd., Montreal, P. Q., Toronto, Ont.

AHCOVEL*

E

AHCOVEL*

F



They *Belong* in Good Company

Ahcovel-E and **Ahcovel-F** (substantive softeners for cotton, rayon, acetate, linen and nylon) "belong in good company". Being alkaline, they may be used with gas inhibitors and also fast-to-light colors to preserve maximum fastness.

THEY BOTH HAVE THESE ADDITIONAL PROPERTIES

- 1 Provide a velvety soft finish.
- 2 Do not affect shades of dyed fabrics.
- 3 Resistant to repeated washing and dry cleansing.

- 4 White paste products, producing a non-greasy, odorless finish, which will not discolor, or develop odor with heat, age or light.

- 5 Easy to apply; economical to use.

AHCOVEL-E

— was originally developed for hard twisted fabrics where good draping qualities are normally difficult to obtain—such as hard twist acetates and nylons. It flexibilizes the fibres.

Data sheets on request.

*Trade Mark Reg.
Patented.

ARNOLD, HOFFMAN & CO., INC.

MANUFACTURING CHEMISTS

ESTABLISHED 1815 • PLANTS AT DIGHTON, MASS. & CHARLOTTE, N. C.

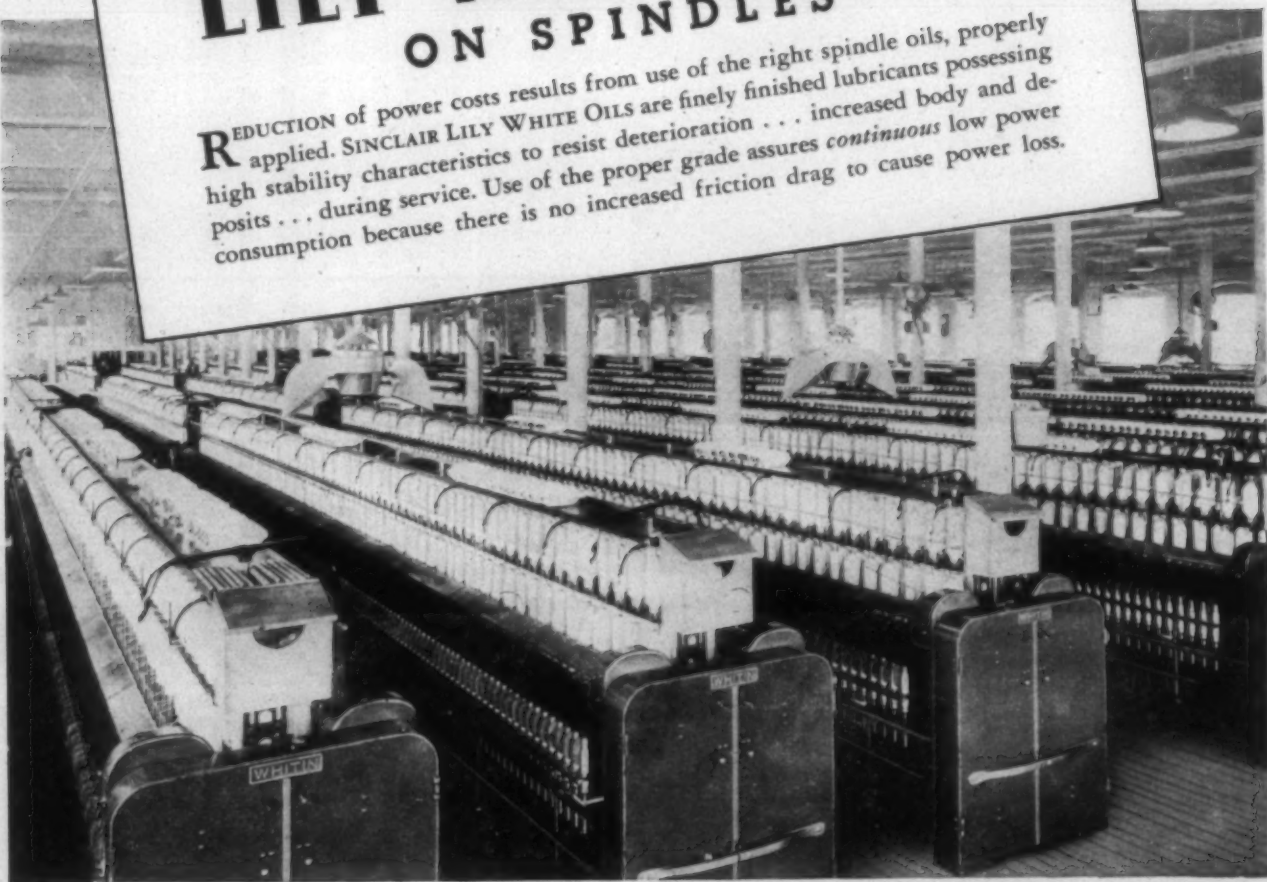
PROVIDENCE, RHODE ISLAND

NEW YORK • BOSTON • PHILADELPHIA • CHARLOTTE

FOR LOW POWER CONSUMPTION

LILY WHITE OILS ON SPINDLES

REDUCTION of power costs results from use of the right spindle oils, properly applied. SINCLAIR LILY WHITE OILS are finely finished lubricants possessing high stability characteristics to resist deterioration . . . increased body and deposits . . . during service. Use of the proper grade assures *continuous* low power consumption because there is no increased friction drag to cause power loss.



BESIDES contributing to low power consumption SINCLAIR LILY WHITE OILS help reduce maintenance cost by promoting long bolster life. Their worth was proven in many plants during the war years when mills were operating at top capacity and replacement parts were difficult to obtain. LILY WHITES come in viscosities to suit all operating speeds. Our lubrication counsel is available in solution of your problems.

SINCLAIR TEXTILE LUBRICANTS

FOR FULL INFORMATION OR LUBRICATION COUNSEL WRITE SINCLAIR REFINING COMPANY, 630 FIFTH AVENUE, NEW YORK 20, N. Y.



LABORISM vs. AMERICANISM

By ALLSTON D. CALHOUN, JR.

THE writer was on a bus the other day when his seat companion opened the conversation with the remark, "These labor leaders are the biggest racketeers in this country today and they surely are going to wreck things if something is not done about it soon." The speaker was referring to the increasing wave of strikes and work stoppages culminating with the recent walk-out of the U. A. W. of the C.I.O. just when everyone was looking for and needing the new cars.

This speaker proved to be a gentleman in corduroys. He said that he had earned his living all his life as a carpenter and joiner and that he was a member of a carpenters' union. Such a speech from a man of labor, and of a labor union, could have been most surprising had not similar utterances been coming with ever increasing frequency these days from the rank and file of the great American public.

No, it is not too strange an incident nowadays to hear a man who earns his living at a trade and who is a member of a labor union refer to the leaders of organized labor as the biggest racketeers and crooks in these United States. And the fact that this realization is dawning on our laborers and tradesmen, themselves, is perhaps the first real healthy glow that has appeared on the horizon of a labor beclouded America in a decade.

Our laboring men are realizing now that while the labor unions are definitely of the laboring people—yes, as many dues-paying laboring people as possible—that they are just as definitely not for these same laboring people who comprise the membership, and for whose benefit the whole idea of organized labor is supposed to operate.

The unions may be *of* the people, and plenty of the people's money, but they are *for* the benefit of the labor chiefs who have muscled themselves into positions of power where, up to now, they have gone about their undertakings of collecting money and disrupting business, seemingly untouchable by any rule of law and order save that of their own greedy desire.

The "let the membership be hanged" attitude of the labor chiefs has increased many times over during the recent years of the war, and for some years before through the coddling of labor leaders and racketeers by the New Deal administration.

A recent manifestation of this attitude is the strike of the U.A.W. against General Motors, which hurt the leaders of the U.A.W. and General Motors Corp. not at all. But, it did hurt Mr. John Q. Public throughout the length and

breadth of the land and most of all it hurt each and every one of the nearly 200,000 workers who have no pay checks during the heavy spending time of the year. The union did not fill the kiddies stockings at Christmas time.

And a wave of new strikes now threatens to flood the country and swamp the industry that is its life blood, all promoted by the same labor leaders. As to these workers having voted to go on strike—that is one of the most poignant bits of irony of the age.

The leaders of the New Deal, and particularly of our wartime administration, could have placed labor on a footing of real Americanism, which is not only of the people, but by and for the people, through the exigencies of war powers and necessities. There would have been no strikes in wartime and labor would not have acquired the rather disgraceful war record that it did, had the leaders of our Federal government put the matter of keeping on the job up to the patriotism of the laboring men in the plants instead of continuing to dicker only with the labor leaders.

The laboring and working classes of our country are just as patriotic and honorable as any other class in our nation—and they had just as many sons and daughters fighting and dying on the battle fronts. But with the government failing to provide any protective legislation for the workers and continuing to dicker and deal only with the labor leaders, the workers had no other choice but to obey these leaders, no matter how crooked and irresponsible they might have known them to be.

Through the complete "hands off" and nurturing attitude that our Federal Government has maintained towards labor for the last decade, and more, there has been a phenomenal growth in the lawless element to be found therein. American labor groups have become shot through with the ideologies of Europe—such as Communism, Nazism and Fascism—and American labor leaders are following in the exact footsteps of Hitler and Mussolini in the creation of pressure groups and in the use of the lie, intimidation and coercion. Hitler and Mussolini built their political machines in Europe through just such means as are employed by many of our American labor leaders of today. And a potent similarity between the three "isms" of Europe is the fact that while they were founded and were purported to operate in the ideal of working for the better position of the many, they in reality excluded the many and restricted their huge profits for the few who got to the top.

Everyone is now familiar (*Continued on Page 71*)

Prospects for the American Textile Industry

THE long pull demand for textiles can be maintained at 20 per cent or more above the 1935-39 average if textile industries lower production and distribution costs and follow an aggressive policy of developing and publicizing improvements in their products, according to an analysis of post-war prospects made public by the Textile Foundation and the Textile Research Institute.

The report was prepared by Dr. A. M. McIsaac, Dr. James G. Smith and John W. Cadman, Jr., of Princeton University under the direction of the T. R. I. economic research committee which is headed by Robert R. West, president of Esmond Mills. It is the first of a series of studies dealing with important phases of textile production and distribution. The conclusions reached in the current report follow:

Demand: After immediate shortages have been met, demand for textiles will be affected by the level of national production and income, the level of textile prices as compared with other consumer goods and by competition between textiles and non-textile substitutes. Competition between different textiles and substitute products will be more intensive than ever before.

International Competition: Indications point to fairly rapid rehabilitation of foreign production and development of new textile industries overseas with emphasis on modern machinery and methods. American international commercial policy aims at relaxation of trade barriers. These developments threaten intensified competition for American mills. Although prospects may appear highly unfavorable in some lines, American mills have traditionally been leaders in textile technology. This leadership will be more essential than ever before. American mills may reasonably urge that any changes in tariff schedules be made in series of moderate steps spread over a period of years. This would enable them to modernize plants before facing the full force of foreign competition over lowered trade barriers. There is need for improving government services designed to aid manufacturers and exporters and of expanding trade associations under the Webb-Pomerene Act.

Wage Rates To Stay High

Wages: It is clear that wage rates will not be permitted to recede substantially as compared with wartime levels. They are likely to be maintained at a higher level. Union organization may continue to gain. There is need for close study of experience of manufacturers who have been dealing with labor through collective bargaining. There is also a need for careful appraisal of the procedures of union-management co-operation on the standardization of job classification and adjustment of work loads in regard to improvements in machinery and methods of production. Increased emphasis should be placed on training program for foremen and supervisory forces and on adjustment machinery for handling grievance cases.

Raw Materials: Present prices on natural fibers—cotton and wool—are considerably higher, in relation to synthetics,

than before the war, and maintenance of these prices will encourage displacement by synthetics in many uses. Cotton manufacturers in particular have an interest in promoting a program of agricultural readjustment for cotton producing areas that will put American cotton on a competitive basis against synthetics and as against foreign-grown natural fibers. More important than ever before is the maintenance of flexibility in the use of textile fibers, both natural and synthetic, to achieve prompt adjustment to changes in market demands. Although cotton can be priced out of the market, its displacement by synthetics will necessarily be a gradual process as a consequence of technological limitations. This means there will be time for textile mills to adapt their operations to changing conditions.

Plant Modernization: The formulation of sound replacement programs will be complicated by improvements in technology and by possibility that revolutionary changes in machinery and processes may make obsolete much equipment that is highly efficient by present standards. Caution in making large current commitments, constant contact with latest developments in technical research, adequate provision for obsolescence as well as wear-and-tear, and maintenance of liquid funds for replacement or innovation will contribute to flexibility in year-to-year planning of productive operations.

Industrial Organization, Distribution: In meeting post-war competition, textile producers must offer better, more attractive goods and tell their story to the consumers. Changes in technology may lead in the next years to greater integration of successive stages in primary manufacturing, finishing and distribution. Even where conditions do not favor vertical integration, various forms of joint or co-operative action by groups of mills may result in better organization of production, improved contacts with market trends, and more effective distribution. The sellers' market will change ultimately into a buyers' market. Frenzied expansion of textile plants as soon as equipment is available may easily lead to excessive capacity when the first post-war clamor for goods dies down. The dangers of short sighted expansion and reckless investment on the basis of short run demands were clearly demonstrated in the private depression that hit the textile industry in the 1920s while other segments of the industrial economy were generally booming. Technological advance and the more efficient use of labor will result in gradual increase in capacity even though there is no increase in the number of units of physical equipment in place. If there is also a general expansion of plant facilities, overall capacity may be increased substantially in relation to any foreseeable demand.

The committee at whose request the analysis was undertaken includes the following: F. W. Binzen, Irene L. Blunt, Rufus S. Frost, Flint Garrison, A. Ford Hinrichs, L. A. Hird, Lither H. Hodges, Stanley B. Hunt, Stephen J. Kennedy, H. E. Michl, Robert T. Pullar and Douglas G. Woolf.

Information about the availability of the complete report may be had by addressing Publication Office, Textile Foundation, Kent, Conn.

Go ahead—

PLACE IT IN THE FADEOMETER!



**DYED WITH
CHLORANTINE FAST
RUBINE RNLL**

The light tests will be identical — both excellent.

No matter how pale the shade, this comparative test will prove it the best direct red component for resin treated fabrics.

Also, reserves acetate a pure white.

• • • DYED ONLY

• • • RESIN TREATED
(urea formaldehyde)



Marquette

ROLLER
BEARING

SPINDLES

PRECISION BUILT

for

MAXIMUM EFFICIENCY

2 IMPORTANT MARQUETTE FEATURES

- 1 PRECISION ROLLER BEARING of extra capacity carries the radial load smoothly and with a minimum of power consumption.

- 2 FULL FLOATING FOOTSTEP BEARING supports all of the weight and acts as a vibration dampener; an unbalanced load can generally center or adjust itself. This bearing is hardened and ground and has a lapped seat.



In scores of mills throughout the country, Marquette roller bearing spindles have won acclaim for smooth trouble-free operation. And no wonder, for they are precision built for maximum efficiency, economy and long life. With Marquette roller bearing spindles you can get better yarn, increased production, savings in power consumption, reduced maintenance costs and other advantages.

The **Marquette** METAL PRODUCTS CO.
CLEVELAND 10, OHIO

Manufacturers of: HYDRAULIC AND ELECTRIC WINDSHIELD WIPERS FOR AIRCRAFT
HYDRAULIC GOVERNORS FOR DIESEL ENGINES • ROLLER BEARING TEXTILE SPINDLES • FUEL OIL PUMPS
AIR COMPRESSORS • PRECISION PARTS AND ASSEMBLIES

Southern Representative: Byrd Miller, Woodside Bldg., Greenville, S. C.

The Sliver Reducer — Something New for the Carding Department

By THE EDITORS

CONSIDERABLE interest has been shown in the textile industry following the announcement of a new attachment to be installed in place of the conventional calendar rolls on cards. Known as the *card silver reducer*, the inventors and manufacturers claim that the objective of this attachment is to eliminate the first drawing process, or perhaps all drawing depending on the type fiber or yarn, without any reduction in quality of the product.

Other advantages claimed are an increase in card production of from ten to 30 per cent, more silver in the cans with resultant longer running time between doffs, and improvement in quality as a result of parallelism of fibers at the card.

Patent papers have been filed by T. B. Hunt, of Acme Machine & Tool Co., Charlotte. Mr. Hunt, together with his brother, W. T. Hunt, superintendent of Carter Mills, Lincolnton, N. C., worked for more than a year with experimental models before applying for a patent. Both of the Hunts are practical mill men, each with some 25 years of experience in Southern textile mills.

Simple Mechanically

The card silver reducer is relatively simple and sturdy in a mechanical sense, with a minimum of parts requiring adjustment or special care. Its size is not much greater than the conventional calendar assembly, and it is mounted in the same place on the card. There are three sets of drafting rollers, which are adjustable up to two inches for different fiber lengths, and which are capable of producing a draft range of from one to five. The rollers are $1\frac{3}{8}$ inches in diameter, fluted, and made of case-hardened steel. There is a collar to prevent too deep a meshing of the flutes and consequent damage to fibers. The roller shafts run in self-lubricating roller bearings, with an oil reservoir which requires oiling about once each two months. Rollers are weighted with adjustable tension springs to allow for differences in stock and silver weight. Flutes are kept clean with clearers installed in the safety cover.

Mill Test

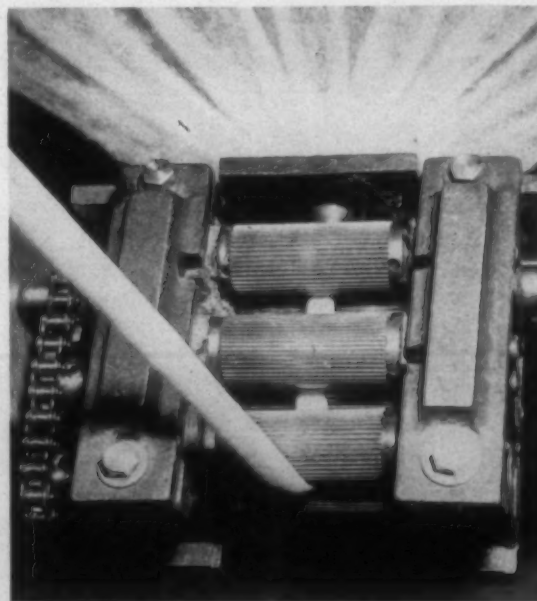
One unit was installed for experimental purposes at Carter Mills in Lincolnton in November and has been running continuously since that time. The writers observed this installation and it seemed to bear out the claims of its inventors. The silver looked better than that on surrounding cards, it was obvious that more silver was being put into the can, and there was no apparent difference in the appearance of the yarn or cloth manufactured from the silver produced with this new attachment.

The card on which the test installation was made is a standard Saco-Pettee, using one-inch strict middling cotton, a $15\frac{1}{2}$ ounce lap, 165 R.P.M. on the cylinder and eight R.P.M. on the doffer. The finished silver weight is 58 grains and production is at the rate of $8\frac{1}{2}$ pounds per hour. On this card silver reducer the break draft was 1.05 and the second draft was 2.00.

One of the advantages claimed for the device is that by exerting a positive bite on the silver as it comes through the trumpet there is less tendency for production of uneven silver through slippage as is found on conventional calendar rolls, and less sagging of the web from the doffer. In this instance it was observed that the web was very even, and the silver appeared to maintain a very uniform tension from the bite of the delivery rolls to the coiler head.

As a result of the paralleling action of the drafting rollers the silver delivered was more compact and laid in the can better. Intervals between doffing operations were increased from 45 minutes to 60 minutes.

Exhaustive tests have not been run to determine the variation of very short lengths of silver, but a yard to yard test comparing silver produced with the card silver reducer with silver produced with the conventional delivery showed less



Close up view of the card silver reducer, with safety cover removed to show rolls and sprocket drive.

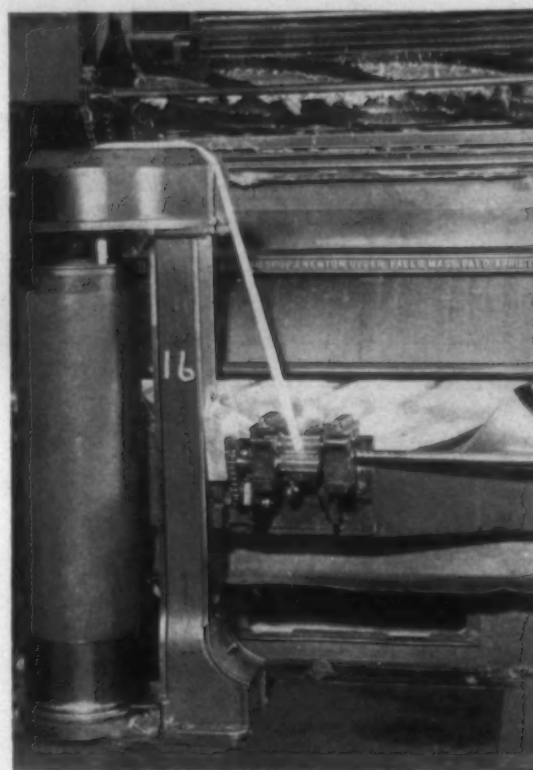
than one-half the variation in the former as in the latter. This test was conducted by weighing each yard of ten yards of each silver.

The silver from the test card is accumulated and then run separately through the second drawing. That is, six cans of silver from the test card are accumulated, and run through one head of drawing. This is then followed through the slubbers, intermediates (1.40 hank), speeders (4.00 hank), and into the spinning room where it is spun into 24s yarn (double roving) for manufacture into jersey cloth on Tompkins knitting machines. No where in any of the processes after leaving the card was it possible to detect any difference in appearance of the roving or yarn. Cloth made from the test yarns was identical in appearance to cloth made by the conventional processes.

Simplicity of application of the card silver reducer is claimed by the inventors, since the attachment is delivered complete, and involves only the replacement of one gear driving the coiler head assembly and one gear driving the can table assembly. It has been estimated that the average card grinder should be able to install the unit in a couple of hours, with about half that time required by a person thoroughly familiar with the device. It is contemplated that first installations will be made by company representatives of the Acme Machine & Tool Co.

Whether or not this new attachment is accepted by the industry, the response by mills to the first announcement of its production is significant. More than 100 mills called, wired or wrote for additional information or samples within a week after the appearance of the advertisement in the Feb. 1 issue of *TEXTILE BULLETIN*. This clearly shows that the industry is alert and aggressive in watching for new developments, and is willing to give anything a fair trial

that promises to cut costs, save time or money, or improve the product.



The card silver reducer installed. Note compactness and simplicity.

The Market For China Brocades

By ALFRED WALLWORK

I SOMETIMES wonder if our textile manufacturers who operate jacquard looms and who can produce cotton goods approximately 50 inches in width realize the potential of the vast market soon to be opened in China for that type of goods known as China-brocade.

Thirty-five years or more ago, this market alone provided an unbroken production schedule for the majority of the Jacquard mills in Lancashire, England. Year in, year out, the looms developed this China brocade to meet an ever increasing demand from Chinese merchants. The textile machinery manufacturers, however, searching for expansion of sales territory for their equipment, approached industrialists and financiers in Japan, urging them to establish similar mills in that country.

Upon being advised by the Japanese that lack of trained personnel prohibited such a step, these same manufacturers suggested that the Japanese enter promising youths in textile schools in both England and the United States. This was done, and these men, after completing all available schooling in this line, offered their services, without pay, to the mills in the two countries in order that they might undergo the actual experience so necessary in textiles.

Having served for adequate periods in the respective phases of textile manufacturing, this corps of trained men returned to Japan, established textile plants and quickly took over the China brocade market from the English mills, which were unable to compete due to the low-cost labor available to Japanese manufacturers.

Now, however, and for some time to come, Japanese competition has, in all probability, been eliminated. Let us, therefore, examine the nature of the goods and the steps necessary to its production.

Chinese will not wear plain goods if they can buy cotton goods with appropriate Chinese designs. The patterns must be originated by the Chinese. They are made on rice paper and are painted on with India ink. The figures are made up of Chinese characters in circles, dragons, butterflies, orange blossoms, palm leaves, etc. On the point-paper design, the designer must follow every detail of the sketch. For instance, should the figure have an awkward appearing curve or the suggestion of a blot on the edge of a figure, each must be shown in the finished design.

To produce the required finish, the following twists of the yarns must be made. The filling yarn has a left-hand or "S" twist and the warp yarn must have a right-hand or "Z" twist. The twist of the yarns must follow the twill of the satin weaves on both the face and back of the cloth. A five shaft weave is used for (Continued on Page 72)

1898

The building shown at the right was the "birthplace" of The Textile Mill Supply Company and was occupied by this concern from 1898 until 1922. The building, which contained about 8,000 square feet of floor space, stood at the corner of Fourth and College Streets.



1946

At left is our present modern home, located at 1300-10 South Mint Street. Completed and occupied in 1922, this building has three stories and basement and contains about 30,000 square feet of floor space. It is of mill construction and was designed by Lockwood, Greene & Co. A spur track of the Southern Railway parallels the building at the rear, facilitating the loading and unloading of freight shipments.

We Have Kept Abreast of the Industry's Growth

When The Textile Mill Supply Co. was established in 1898 there were only four million spindles in the South; today there are nineteen million.

During these 48 years, this company's facilities for supplying the needs of the rapidly expanding Southern Textile Industry have been steadily improved and enlarged. Original floor space has been more than tripled; stocks have been increased and new lines added; staffs of employees in all departments have been

augmented; a complete catalog of mill supplies carried by this company is now published at regular intervals and furnished free of charge to our customers. (A new edition, containing about 700 pages, is being printed and will soon be ready for distribution).

The Textile Mill Supply Co. will continue to keep abreast of the Southern Textile Industry's growth and requirements, and manufacturers may rest assured that here they will always find a dependable and immediate source of mill supplies and equipment.



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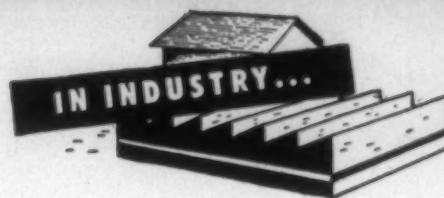
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THE ONE-STORY BUILDING

By ERNEST A. DENCH



MANY an industrial enterprise is of humble birth—one-man activities in a converted shed housing a machine or two and an office desk. Other makeshift structures went up as the growth of the enterprise warranted. The enterprise became a full-fledged company, with the founder as president, who, in time, accepted the sound advice of an efficiency expert *that only a new plant can be completely modern*. Up to the extent of several stories went a permanent building embodying all then and latest innovations. For sentimental reasons, the president retained the collection of sheds and shacks elsewhere on the property; and also, for so-called economical reasons, to store junk and for emergency operations.

Anyone who travels around the country with his eyes wide open will discover many industrial "shantytowns." Virtually the only difference between the industrial and residential "shantytown" types is that there are no ragged, dirty children around; no prematurely-aged mothers attending to endless washlines; no cats, dogs, chickens, ducks and goats wandering at will through wide open doors! Let's leave this depressing scene and turn to the more cheerful and attractive picture of the increasing number of new one-story industrial and commercial buildings dotting the country side in beautifully landscaped plots. As yet, they are but far-apart dots. They symbolize the decentralization of industry—the prevailing trend to consider moving to smaller communities, or to establish branch or regional one-story factories or supply depots.

Buy Ground—Not Structures

Other far-sighted business men and industrialists, as wartime restrictions recede more and more into the background, will buy ground rather than existing buildings, no matter the low price temptations of the latter. An antiquated building used for another type of production or distribution is costly in the long run, what with major constructional and operational drawbacks. More land has to be acquired for erection of the one-story building if the allowance for future expansion is outward instead of upward.

Location is the crux to this economic situation. Is it necessary for the new plant to be within urban limits of existing intensive industrial or commercial development? If not, then the land cost for a one-story building, located, say, a few miles beyond the city limits, should be no higher (perhaps less) than the smaller plot occupied by a multi-story building in a fully-developed industrial or commercial zone within the city. Taxation is another consideration. It is, as a rule, much lower in rural communities.

Cheap land—and lots of it for possible outward expansion—is a one-story plant essential. The land surrounding the new building will, if landscaped and planted by a professional nurseryman, eventually have an intangible show-place. This will be a big asset if the plant is located near a

much-traveled highway or a potential airport. It is inadvisable to locate a one-story building on low-lying ground, especially that near to a river or marsh. There is the attendant risk of floods at times of high water. Records of the river when on the rampage should be consulted at the county or local library. A frank and friendly native can also tell a lot, although, like the vendor of big fish stories, he may exaggerate for dramatic effect. Consultation of back newspaper files should yield a lot of facts. The nature of the ground will determine the probability of low or high foundation costs. Drainage and grading cost more, as a rule, in soft ground than in hard. Another uneconomic choice is a hillside location. It is less flexible, causing the construction costs to mount.

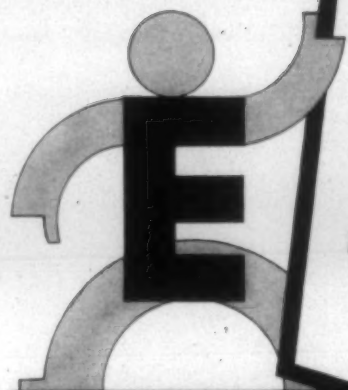
Perhaps the most ideal location is on a plateau. It is immune from most floods because of high altitude in relation to the surrounding terrain; yet level enough to insure normal construction costs.

The one-story building is more economical to construct and maintain because stairways and elevators are not required. Neither do lower floor areas have to be reinforced to withstand the gross weights of upper floors. Many a structural engineer will, when challenged, admit that the upper floors of plenty of buildings carry far heavier weights than their original constructions warrant. Some of these excess weights, as in the case of abnormal quantities of raw materials being purchased because of the indication of a rising market, are temporary. All the same, the floor is weakened. Given time and a lack of maintenance, the outcome may be a collapse of part or all of the sagging floor, with loss of life, machinery and materials. A one-story building will, pound for pound, carry a heavier load on the single floor level.

Another one-story building advantage is more productive or storage floor footage. A midwestern engineering firm recently computed the productive floor areas, respectively, of one-story and multi-story buildings, each with a gross floor area of 72,000 square feet. The first building, one-story, chosen for the check-up was 150 feet by 480 feet. The second building, six stories high, was 60 feet wide and 200 feet long. Because of elevators, stairs (plus the approaches to them), and supporting columns, the six-story building lost 10,940 square feet.

A truss roof makes unnecessary the floor area of a one-story building being cluttered with supporting posts or pillars, the usual spacing distance for which is 20 feet. Even though the truss roof costs more to construct than any other kind of roof, it provides an unobstructed working interior—advantageous for sequence production. It also allows more flexible adjustments of floor space as required by changing conditions.

The decision concerning a skylight hinges on whether, when the time for expansion comes, a second story will rise about the first story or whether (Continued on Page 65)



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A.A.T.C.C. Intersectional Contest Papers

Presented in New York City Jan. 4 at American Association of Textile Chemists and Colorists Convention

Factors Which Cause or Prevent Agglomeration of Pigment Particles

By RAYMOND W. JACOBY
For RHODE ISLAND SECTION (First Prize)

IN THE A.A.T.C.C. Intersectional Contest paper submitted by the Rhode Island Section in 1944, entitled "Factors Affecting Color Yield in Vat Color Printing," it was shown that agglomeration of pigment particles can cause a very substantial loss in color yield. Inasmuch as coloring materials in pigment form are used extensively not only in vat color printing, but in many other ways, it was thought a study to determine what factors or properties cause or prevent this agglomeration would be of material value, and accordingly this work was undertaken. The phenomena studied can be classified under the following four headings: (1) electrical charge on color particles; (2) hydration of color particles; (3) nature of the colloidal dispersion of the thickener; (4) effects of finely divided solids.

In order to eliminate variables due to different types of pigment dispersion, all of the experiments were made with the same vat color paste, namely, Ciba Blue 2BDG Double Paste, C. I. 1184. The presence or absence of agglomeration was determined by microscopic examination of dispersions of the pigment in various media, and by making prints on cloth.

It has been found that all vat pastes tested carry a negative charge, and it was assumed that the introduction of an electrolyte carrying a positive charge would cause agglomeration. Solutions of salts containing mono-, bi- and trivalent cations were made and Ciba Blue 2BDG Double Paste was added to each. It was found that as the amount of positive charge on the ion increased from one to two to three, the amount of agglomeration increased. This shows that when pigments carry an electrical charge, introduction of electrolytes carrying a strong opposite charge can cause agglomeration. Electrolytes of this nature probably would not be encountered in vat color printing pastes except as impurities, but it is advisable to add small amounts of phosphates, such as sodium hexameta phosphate and sodium tetrakisphosphate, carrying a strong negative charge to prevent agglomeration.

Since vat color pastes are water dispersions, and the pigment particles are considered to be hydrophilic, it would be expected that the addition of substances having strong affinity for water would weaken the water envelope surrounding the pigment particles, and thereby promote agglomeration.

In confirmation of these ideas it was found that anhydrous ethyl alcohol or silica-gel when added directly to the vat color paste caused agglomeration. If these materials are first added to another aqueous phase so that they become hydrated and vat color paste is then added to the mixture, no agglomeration occurs.

Gelatinized corn starch has strong affinity for water. If a vat color paste is added directly to a starch paste, the color agglomerates. If, however, the vat color paste is first added to water, so that there is an excess of water to protect the dyestuff, and the mixture then added to corn starch, there is minimum agglomeration. If the addition of the same amount of water is made to the starch paste and the vat color paste then added to the diluted starch paste, agglomeration occurs.

These tests seem to substantiate the theory that any action which disturbs the envelope of the vehicle around the color particle affects dispersion. This action is also demonstrated in mixtures of pigments in oil where oftentimes additions of fatty acids are made to facilitate "wetting" of the pigment particle so as to obtain better dispersion. Maximum color yield or depth of shade depends upon complete dispersion of the color pigment as agglomeration causes reduction in color yield or depth of shade.

To study the effect of "thickeners," pastes were prepared of various thickening agents and water. These were of similar viscosity and all had "printable body." Vat color paste was added to each different thickener, the resultant mixture examined under the microscope and then prints were made. The results of this test showed a range of from complete agglomeration of all the color to practically no agglomeration. This indicated that there was some property of these various thickeners which had a material effect upon the dispersion of the color. A number of further experiments were made in an effort to determine what properties caused this effect, but no satisfactory answer was found.

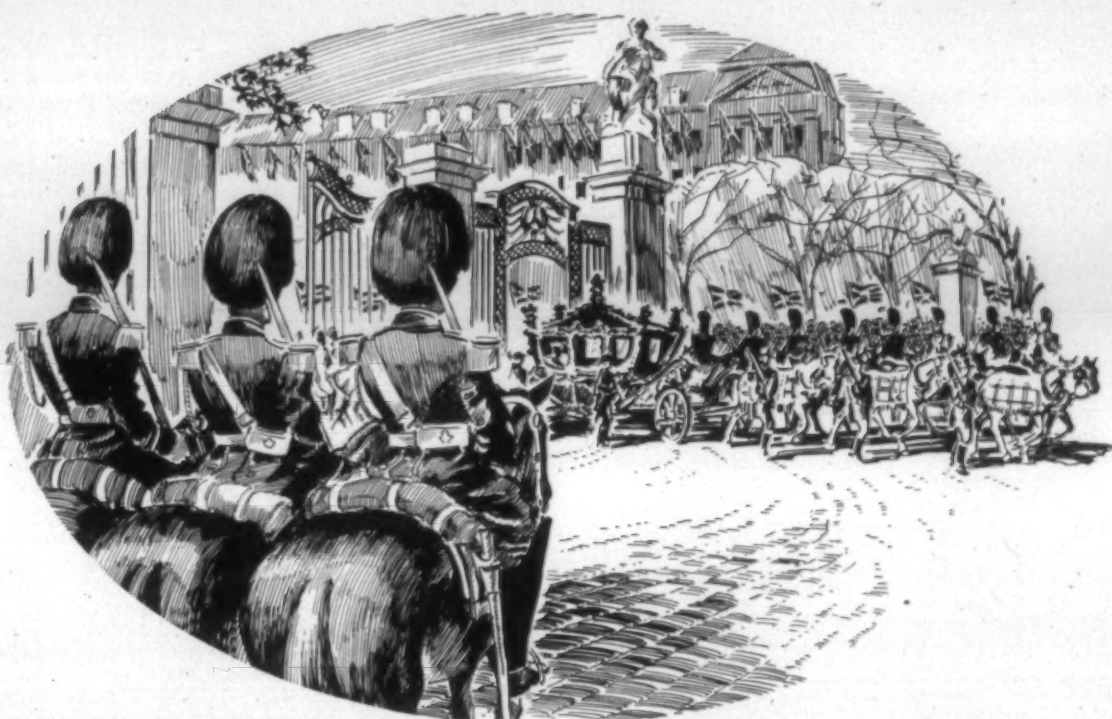
It has been established that if solid particles of various size are mixed, the smaller particles tend to coat the larger particles. It was thought that this action could be utilized by adding fine particles of insoluble material to the vat color paste. Then, depending upon the size of the color particles and of the particles of the added material, one would coat the other and prevent the color particles from agglomerating and adhering to each other. As there are on the market quite a few insoluble and relatively inert pigments of fine particle size it was decided to experiment with them. Examples are: silica, diatomaceous earth, aluminum oxide, silica gel, bentonite, syton (colloidal silica), calcium sulphate, and calcined calcium sulphate. All of these materials with the exception of the calcium sulphate, when added to the starch-British Gum paste improved the dispersion. An experiment was made using silica of different particle sizes. These particle sizes were: 0.4 microns, and 50-125 microns. These were used in conjunction with a starch-British Gum paste.

From a practical standpoint these studies show that in the use of pigments, microscopic examination should be made to see if any agglomeration exists. If there is no evidence of any, or only slight traces, the dispersions might be improved by addition of finely divided particles of inerts, care being taken to see that such addition does not introduce harmful factors such as particles which would scratch a print roller. If serious agglomeration exists, this work indicates that there are at least three factors which have been shown to cause agglomeration and investigation should be made to see if they exist and have caused agglomeration. They are: (1) presence of electrolytes which affect the electrical charge on the pigment particle; (2) presence of materials which affect the degree of hydration of the color particles; (3) the nature of the colloidal dispersion of the vehicle.

The Mechanics of Zone Control in Resin Finishing

By KENNETH P. MONROE
For NORTHERN NEW ENGLAND SECTION (Second Prize)

FOREMOST of the interesting and useful features of the modern rapid development of resin finishing are the striking and valuable contrasts in properties of the finished textiles obtainable by con-



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trolling the zoning of the resin finish either within, or around and "on" the textile fibers. The two extremes of such zoning are: (1) when the resin is distributed uniformly "in" or throughout the whole fiber, and (2) when the resin is restricted to a limited zone of the treated fiber, as, for example, an exterior sheath of resin "on" and around the fiber.

The efficacy of shrinkage control by the application of methylol melamine solution to wool fabrics and cellulosic fabrics is already well established. It is the purpose of this investigation to study their effects upon other important physical properties which may be governing criteria in end use. The following properties were determined: (1) fabric count, (2) strength, (3) elongation, (4) thickness, (5) air permeability, (6) stiffness, (7) resilience (compressional), (8) dimensional stability, (9) thermal transmission, and (10) shrinkage.

Toward firm conclusions that the differences in physical properties of the finished textiles, about to be presented, are due, simply and solely, to zoning, the same resin substrate (methylol melamine, with an average of 2.3 methylol groups per melamine ring) in the same concentration (ten per cent was used throughout, with identical curing catalyst (zinc chloride) in the same proportion (1.5 per cent based upon resin solids) and the same time and temperature of curing. The only variation was that water was the solvent and fluid treating medium where "in" zoning was desired, while aqueous ethyl alcohol was used where "on" zoning was desired. Wool, cotton and rayon fabrics were padded with the methylol melamine solutions, dried, cured, washed, dried and ironed. Results indicate that many differences in physical properties of the treated textiles are entirely consistent with the corresponding differences in zoning shown independently by the microscope.

Since some shrinkage and other minor dimensional derangement of fabric is inevitable during padding, curing, washing and ironing, "control" fabrics were prepared by putting them through the entire cycle just as outlined but using water instead of resin substrate solution. Variation in physical properties between the treated and control fabric is, therefore, strictly due to resin.

First, the direct visual evidence of zoning was obtained by stain-

ing and microscopic examination, the staining medium, Anthraquinone Blue BN, being applied from dilute acetic solution under conditions where the acid nature of the dye would tend to accent the color in approximate proportion to the amount of resin present. Application of the resin, either *in* or *on*, creates no essential dimensional aberrations when compared with the control fabric. Thus, it may be concluded that differences in physical properties discussed below are simply and solely due to zoning.

The strength of the wool fabric is not affected materially by the treatments both warp and fillingwise. In the case of cotton and rayon the *on* treatments diminish the elongation more than do the *in* treatments; hence the *on* strengths are lower than the *in* strengths independent of any chemical tendering. The resin treatment has but a negligible effect on the elongation of wool. With cotton and rayon, the *on* treatments diminish the elongation more than do the *in* treatments.

For the various fabrics, the thickness of the *on* is significantly greater than the control. For the wool, the *in* is significantly thicker than the control, while in the case of the rayon and cotton, the control and the *in* show no significant differences. There is no significant difference between the control and the *in* for wool, cotton or rayon, while the *on* treatment yields a significant reduction in air permeability in every case. The *on* and *in* are significantly different for the three fabrics.

The melamine resin is more rigid than wool or cellulose, and stiffer fabrics would be expected when applied either *in* or *on*. In the *in* samples, the resin is distributed in discrete particles, and some increase in stiffness results. For the *on* fabrics, the resin consists of a continuous exterior sheath; here, it acts as a structural unit and greatly increases the stiffness. In the case of the wool, both the *in* and the *on* treatments show an improvement over the control as regards compressional resilience, the *in* being preferred. The poorer original resilience properties of the cotton and rayon are not as greatly improved as are the better original resilience properties of the wool.

Application of resin, either *in* or *on*, to the wool, cotton or rayon does not make these fabrics better inherent insulators. Application does make them thicker, and because they are thicker, their total insulation ability increases. For the wool, both *on* and *in* treatments appreciably reduce shrinkage—the *on* showing great improvement. In the case of the cotton, the control does not shrink appreciably; hence the *in* or *on* treatment has an opportunity to be effective. For the rayon, the *on* shows some improvement, the *in* giving excellent results.

From the foregoing analysis, it is apparent that the application of methylol melamine resin on fabrics of wool, cotton and rayon definitely modifies other important physical properties. Unfortunately, time permitted only one set of data for each fabric and, hence, the results and conclusions should be considered in the light of this fact. It is earnestly hoped that further investigation of the physical properties as they are affected by resin application will be stimulated by this study.

Evaluation of Fabrics As To Their Flammability

By CHARLES W. DORN
For NEW YORK SECTION (Third Prize)

EVERYONE KNOWS that the ordinary garments which we wear will burn. It is also well known that all garments do not burn with equal rapidity. Thus, wool and silk fabrics will hardly burn at all. On the other hand, burning takes place more easily in the case of fabrics of cotton, linen, ramie, regenerated cellulose rayons, etc. Those fabrics which have the individual fibers exposed as in a pile, or as tufts in chenille, or as in the loosely matted or brushed out fabrics, are easily ignited, flame up, and burn rapidly. Densely knit or woven cellulosic fabrics are much more difficult to ignite; and when ignition does occur the actual burning is relatively slow.

To protect the public from buying garments and materials intended for garments which ignite easily and burn rapidly and are, therefore, a personal fire hazard has been the aim of legislators and their legislation. Legislation recently was passed by the State of California which outlawed certain types of flammable fabrics and a Federal Bill HR2496, based on the original California law, has been sent to Congress.

At the time the California law was passed, no satisfactory test

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method had been devised for determining flammability. With Federal legislation looming ahead, it was imperative that some action should be taken to develop a suitable testing method. As the National Dry Goods Association was fully aware of the seriousness of this condition, it requested the A.A.T.C.C. to investigate test methods. The need for a test apparatus was so pressing that a special A.A.T.C.C. subcommittee was appointed to study the flammability of consumer fabrics, and this committee set about devising apparatus on which tests could be made.

Meanwhile, lest Congress enact some unwise legislation, the National Retail Dry Goods Association arranged for an unofficial hearing in the Washington office of Congressman Leroy Johnson of California, sponsor of the Federal bill, where members of the special committee demonstrated the tentative test apparatus which it was developing and the point was stressed again and again that any flammability legislation without a good test method could not effectively be enforced. After the construction of the above-mentioned apparatus had been completed, test samples of a definite size were decided upon, and a proposed tentative method for testing flammability of consumer fabrics was evolved. A number of samples, none of which were flameproofed, were then tested on this apparatus with the following results:

(1) All rayon fluff knit, low brushed Bemberg face—burned only in a slight circle; (2) white cotton flannelette, low brushed face—burned only in a slight circle; (3) viscose rayon twill, medium low pile face—burned at times varying from ten to 23 seconds; (4) viscose rayon medium pile fabric, dense face length of pile approximately 3/32 inch—burned in 9.5 seconds; (5) viscose rayon netting—burned rapidly with complete combustion in five to six seconds; (6) acetate rayon netting—burned in five seconds with a very slight volume of flame, but melting during combustion, and drops of burning molten material dropping through the grid; (7) cotton blanket fabric—burned in ten seconds; (8) cotton warp, 50 per cent cotton, 25 per cent wool and 25 per cent rayon face blanket fabric—burned in 14.2 seconds; (9) long-pile viscose face rayon fabric—burned in five to six seconds; (10) pyroxylin coated fabric—did not ignite on the first application of the flame; did ignite on the second application to the same point and burned with a very intense large volume of flame.

Numerous samples of wool, silk, nylon, vinyon and velon were tested and found to be non-flammable when tested on the flammability tester. It was also found that a dressing gown made of napped cotton fabric burned very rapidly where the moisture in the atmosphere was low, but when this same gown was tested some time later when the humidity was relatively high, it was impossible to ignite the napped face. It was found that conditioning, drying 15 minutes at 105° C., desiccating three minutes, and then brushing with one stroke of a wire brush, brought the fabric to a suitable state for testing.

From tests made of many types of fabrics by the proposed tentative method, it can be concluded that: (1) wool, silk, nylon, vinyon and velon fabrics offer no flammability hazard; (2) cotton is just as flammable as regenerated type rayon under identical construction and testing conditions; (3) with cotton having a normal moisture content of 6½ per cent, as compared to regenerated type rayon with 11 per cent, it is reasonable to conclude that cotton will come to the critical point much more rapidly than rayon; (4) if the samples of any one fabric are all in identical condition as to moisture content and physical condition of the face being tested, very close correlation of results within one laboratory and in any other laboratory can be arrived at; (5) certain coated fabrics, although generally slow to ignite, burn with a violent flame which is difficult to extinguish and therefore offer a very definite hazard.

Practical Effect of Stretching Synthetic Yarns

By JOHN E. BELL
For PIEDMONT SECTION

THE SUCCESSFUL handling and processing of textile yarns and their fabrication into woven and finished cloths is predicated upon holding to a minimum mechanical damage to the yarn and the retention of, as much as possible, of their original strength and other physical properties. This aim is dependent to a large degree

upon the ultimate strength of the yarn, but also upon the ratio between this strength and the ability to stretch without breaking.

When synthetic yarns are stretched while wet and heat, a certain degree of molecular reorientation occurs within the fibers, which is not obvious from a casual inspection and which does not result in an immediate breaking of the filaments. This study is intended to show the effect of such stretching, with particular reference to the stretching incurred during slashing or sizing of synthetic warp yarns.

Samples of representative yarns were immersed in water at 65° C., stretched to a predetermined extent, dried, and conditioned at 65 per cent relative humidity, 70° F., while still held under tension to retain the stretched length. Specimens prepared in this way were then broken on an inclined plane tester. The method of stretching is the same that would be met in commercial slashing.

The results of tests with two different sizes and three different makes of cellulose acetate yarns are as follows: the 55 denier, 20 filament Eastman yarn shows an original total elongation of 21.7 per cent and a total elongation of 14.9 per cent after stretching three per cent. This is further decreased to 13 per cent in the sample that was stretched as in slashing six per cent. A 12 per cent stretch in slashing reduced the total elongation to 6.1 per cent while after the yarn had been stretched 24 per cent, the total elongation was found to be 3.2 per cent. Celanese 55 denier yarn follows a somewhat similar pattern with an original total of 21.9 per cent, a loss of 4.2 per cent after stretching three per cent, a loss of 8.9 per cent after stretching six per cent, a loss of 11.9 per cent after stretching 12 per cent and a loss of 15.9 per cent after stretching 24 per cent. Tests made on 75 denier Du Pont cellulose acetate yarn and 75 denier Celanese yarn show that, in general, the loss in total elongation is relatively proportional to the actual slashing stretch until a maximum of 10-12 per cent is obtained. If the yarn is stretched beyond this point, the loss in total elongation is less than the total stretch.

It is to be noted also that the tensile strength of the yarn does not suffer; in fact, in most cases it increases slightly. Similar tests made on five different 275 denier and 300 denier medium and high-tenacity viscose rayons show a similar effect. Here, however, the correlation between stretch in slashing and loss in total elongation does not go beyond the six per cent limit, and tests made on yarn stretched 12 per cent or more show the loss in total elongation to be much less than the yarn has actually been stretched.

Nylon shows a decrease in total elongation of 2.8 per cent, when stretched three per cent in slashing, a further increase of only 0.2 per cent when stretched six per cent. It shows a loss in total elongation of only five per cent after stretching 12 per cent in slashing. Fortisan, with an original total elongation of only 5.7 per cent drops to 2.4 per cent when stretched three per cent and shows a considerable loss in strength.

Bright Cordura yarn (50 denier) shows a fairly consistent loss in total elongation until just past the six per cent mark, after which the difference decreases. When tested wet, this yarn does not show any closer correlation with stretching than dry. The loop strength decreases progressively as the stretch in slashing is raised. Other tests made on the 50 denier Cordura yarn show that, when this yarn is stretched as outlined previously, it is able to return essentially to its original length and to regain its original strength and elongation by rewetting and drying without tension, even when stretched in slashing as high as 15 per cent. This indicates no essential damage to the yarn when it is stretched in this way and contrasts violently with the effect of stretching such a yarn 12 per cent or 15 per cent while dry.

Similar tests were made on rayon staple yarns. Two yarns were selected, one in 20s and the other 20/2, both made up of 55 per cent three denier, 2½-inch dull viscose, 15 per cent 1½ denier, 1 9/16-inch bright viscose, 25 per cent three denier, 2½-inch dull acetate, and three per cent three denier, 1½-inch bright acetate. Stretching while wet materially increased the strength of the yarn at the same time the total elongation is being reduced. Somewhere between five and ten per cent of slashing stretch, the strength begins to drop. In the case of the two-ply yarn the strength, after stretching ten per cent, is still appreciably higher than the original strength of the yarn. In the singles yarn the strength, after stretching ten per cent, is less than it originally was.

The practical conclusions, which can be drawn from this series of experiments, must be tied in rather closely with known or assumed requirements for a given yarn to enable it to be handled,

twisted, woven, and finally dyed and finished successfully. In addition, any special requirements, which a woven fabric must meet, must also be considered. In general, if a yarn is permitted to retain at least 15 per cent of total elongation, it can withstand all of the mechanical effects incident to processing. Therefore, before any specifications are adopted covering the amount of stretch that can be given any yarn, the original elongation must be known and its reaction under conditions incident to stretching must be determined.

Effect of Different Types of Dyestuffs On Rate of Deterioration of Cloth Exposed to Weathering

By MATTHEW T. BARNHILL
For SOUTHEASTERN SECTION

THAT THE RESISTANCE of cotton fabrics to weathering is increased when they are dyed with some types of dyestuffs and decreased when dyed with other types is revealed by recent research work. This investigation indicates that in general naphthol-dyed fabrics deteriorate more rapidly than undyed bleached fabrics; cloth dyed with sulphur, light-fast direct, and diazotized and developed type dyestuffs possesses a resistance to deterioration greater than the undyed fabric; vat-dyed cloth is about equal to or slightly more resistant to deterioration than the undyed fabric. There does not seem to be any mathematical relationship between fabric deterioration from weathering and the color fading that takes place.

Dyed and undyed cloth was exposed to weathering simultaneously in Biddeford, Me., Lindale, Ga., and Birmingham, Ala. Warp breaks, and viscosity readings, were used to measure the deterioration of the fabric after weathering. Spectrophotometric calculations were used to show the actual degree of color fading on the samples exposed to weathering in Birmingham. In comparing these samples to the ones exposed in Biddeford and Lindale, the amount of fading was estimated by matching the faded samples together under a Macbeth color identification lamp. Accelerated fading, weathering and ageing tests were made on all types of fabric being otherwise tested.

A single cut of 3.60 sheeting (which had been singed, desized, kier boiled and chlorine bleached) was equally divided into six pieces. One piece was retained as an undyed control sample. The remaining five were dyed with blue dyestuffs to give as nearly as possible the same depth of shade. All dyeings were made on a conventional jig, and the methods were consistent with those recommended by the manufacturers of the dyestuffs.

The following dyestuffs were employed: Naphthol AS-SW, 1 1/3 per cent, coupled with Naphthol Diazo Blue B Salt; Indanthrene Navy Blue BRP, five per cent; Diaminogen Blue NAA, one per cent; Calcogene Blue 6 RCF Conc., four per cent; and Pontamine Fast Blue SFL Conc., one per cent.

After these pieces of cloth were dyed, they were sewed together, put on a jig, and were washed cold through a large number of ends until they were as nearly neutral as possible. The bleached but dyed control sample was finished separately from the dyed pieces but in a similar manner.

A ten-foot sample of each type of dyed fabric as well as the undyed bleach control, was mounted on frames of similar construction at Birmingham, Lindale and Biddeford. Each frame was set up outside on the roof of a building to allow the full effect of weathering. At intervals of two weeks after weather exposure was started a seven-inch strip of cloth cut from selvage to selvage was removed from each sample being tested. From each of these strips eight four-inch x six-inch specimens were cut and broken warpwise using standard A.S.T.M. procedure on a Scott vertical tester of 150 to 200-pound capacity in the lower limits. Before breaks were made all samples were dried at not over 100° F. until the dry side of seven per cent regain was reached. They were then conditioned 24 hours at 65 per cent R. H. and 70° F., after which the breaks were made.

Fleidity determinations were made on samples of exposed cloth covering the entire 14-week period of exposure in Birmingham. Determinations were also made on cloth exposed at Biddeford and

Lindale, showing degradation after 14 weeks' exposure. The following table shows the warp breaks of fabric exposed at Birmingham:

Fabric	Unexposed							
	Original	4/14	4/28	5/12	5/26	6/9	6/23	7/7
Undyed bleach	52.8	46.1	42.0	38.5	34.4	31.3	29.0	22.9
Naphthol dyed	50.4	45.5	41.9	35.9	30.6	26.0	22.0	17.7
Vat dyed	50.4	47.4	45.3	40.8	38.0	32.6	27.7	21.5
D. & D. dyed	54.6	48.6	44.9	40.0	37.5	36.4	34.9	22.1
Sulphur dyed	53.6	52.0	48.9	51.5	45.3	40.4	37.6	31.6
Light-fast-direct dyed	49.4	48.4	46.4	43.1	40.5	33.8	32.7	29.1

Viscosity determinations confirmed the results obtained by warp breaks.

Some Effects on Dry Heat Upon the Properties of Nylon Fabrics

By ARTHUR W. ETCHells
For PHILADELPHIA SECTION

NYLON FABRICS can be greatly improved in handle and appearance by heat treating. These heat-treated fabrics are softer, more mellow, and have a finished appearance not apparent in untreated materials. Heat treating also renders the fabric more resistant to dimensional changes, and also helps to overcome the tendency to crease when washed or submitted to other wet treatments. Proper heat treated nylon fabrics may be dyed in rope form at elevated temperatures without developing crow's feet or dye creases, which are unavoidable in untreated fabrics. Pieces set at high temperatures are also more resistant to creasing when dry, and, if creased, quickly recover to the normal uncreased state when allowed to relax. A further advantage of heat treating nylon fabrics is that many of the strains accumulated in the manufacturing of the fabric are equalized and thus produce a more satisfactory piece of material. It has been observed that heat treated nylon fabrics do not always show the same dye affinity that is shown by untreated nylon, and it is well known that nylon can be severely damaged by heat. With these advantages and disadvantages in mind, a study was undertaken in order to determine the best operating conditions for securing the maximum number of advantages with the least amount of damage to the nylon, and also to determine the effect of heat treating upon the dyeing properties of the fiber.

The first trial was made by passing measured pieces of nylon parachute fabric over an electrically heated revolving cylinder, varying the temperature through the range of 335-470° F., but maintaining a constant contact time of 2½ seconds during the treatment. The filling, which was under but little tension in processing, showed a loss in width at 470° F. of 1½ inches, with no creep back to the original width of 37 inches. Goods treated at 445° F. also showed a permanent fixation. At lower temperatures the goods showed a uniform tendency to return to the original dimensions, although in no case did the fabric return to the original width. The warp, which was held under tension, showed practically no variation in length. The greatest loss in strength of the filling occurred between 435 and 470° F. The warp showed but little loss in strength throughout the range of temperatures used. Filling elongation was not seriously affected by temperatures up to 445° F. Over that temperature there is a distinct loss.

All these tests indicate that nylon fabrics may be exposed to dry heat at temperatures of 350-440° F. for 2½ seconds without serious damage to the nylon. Higher temperatures of treatment cause rigid degradation of the fiber.

The second test was made to show the effect of operating at the highest safe temperature (440-450° F.) and varying the time of contact. Contact times used were 2½, 3½, 4½, 6, 8, 11 and 13 seconds. There was practically no warp shrinkage, whereas the filling showed nearly maximum shrinkage at the shortest exposure time, with very little change thereafter. Both warp and filling show a constant reduction in strength as time of contact increased. There was also a consistent loss in elongation of the warp with increased contact time.

Dyeing trials were made using one-half per cent dyestuff at 185°

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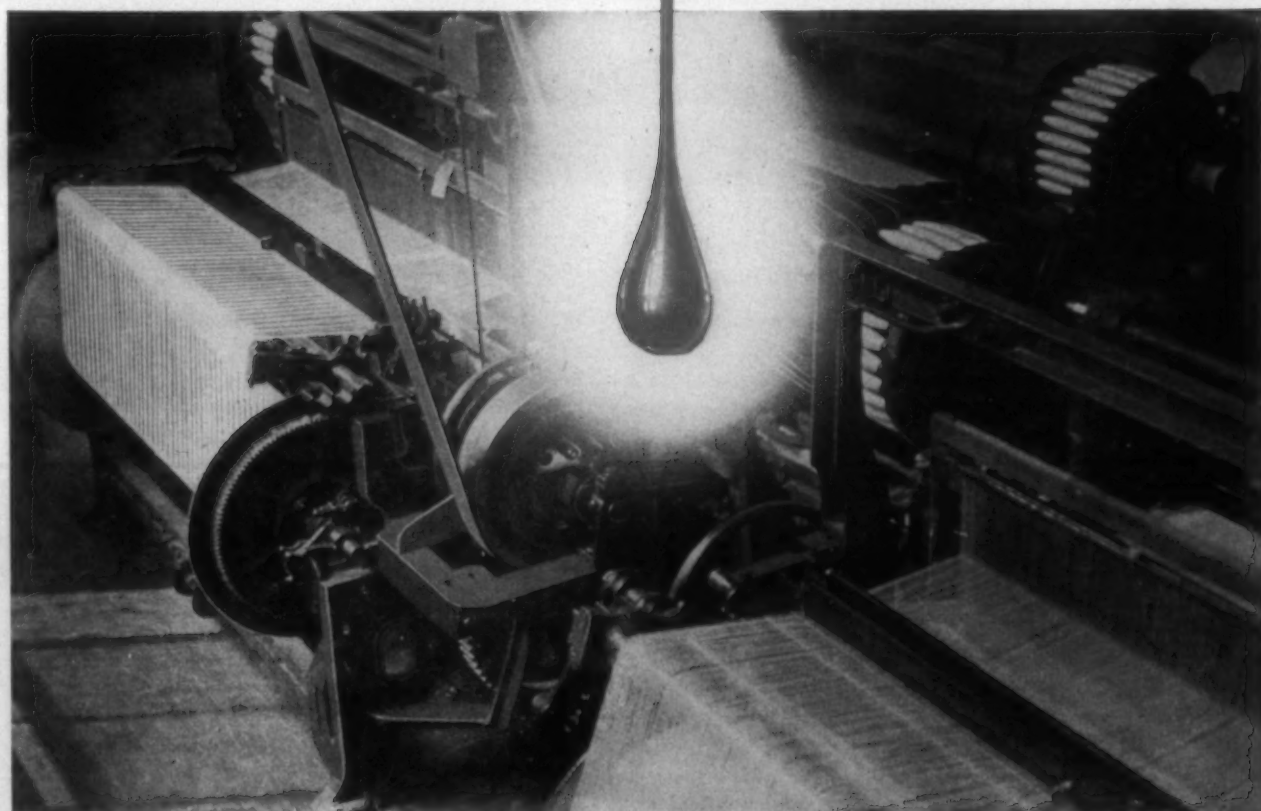
Worn bearings tend to leak oil, and oil which doesn't stay in is a menace to fabrics, yarns and floors.

In order to make oils "stay put," it is necessary to give them retentiveness by treating them chemically. Another purpose of treatment is to increase their load-carrying capacity. Still another is to make them resistant to oxidation, so they do not form gums or sludges.

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F. for one hour. Four types of blue dyestuffs were used: (1) an acid anthraquinone dye—Brilliant Alizarine Blue B.S.; (2) an acid azo color—Cloth Fast Blue R.; (3) an anthraquinone acetate type—Celanese Pure Blue B.; (4) an azo acetate dyestuff—Eastone Blue B. G. F.

Samples pretreated at 420-445° F. and dyed with Brilliant Alizarine Sky Blue B. S. showed no creases after dyeing and air drying; in fact, they appear as if they were pressed, but the samples treated at the lower temperatures have heavy creases. The dyed samples showed no significant difference in shade, with the exception of the sample heat treated at 470° F., which was much greener and duller. This was caused by the yellowing of the nylon at the higher temperatures of pretreatment. Dyeings made with Cloth Fast Blue R showed very great differences in the depth of shade. There is a decrease in dye take-up with increasing temperature of pretreatment up to 420° F.; then the dye absorption increases with increasing degradation of the nylon. Pieces dyed with Celanese Pure Blue B showed a progressive loss in depth of color with increased temperature of pretreatment. The samples treated at the higher temperatures (over 420° F.) also were much greener and duller. Heat treated samples dyed with Eastone Blue B. G. F. showed decreasing absorption of color with increase in the temperature of pretreatment. The samples treated at over 420° F. were also duller and greener.

In the series heat treated at 440-450° F., and changing the time of contact of the fabric with the cylinder, through the range of 2½ seconds to 13 seconds, only the untreated control showed creases after dyeing in a beaker and air drying; all other samples presented a smooth, flat surface equivalent to a well pressed fabric.

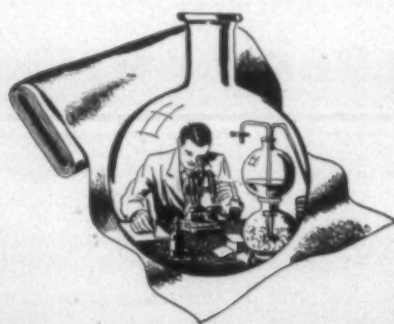
Brilliant Alizarine Sky Blue B. S. when dyed on these samples showed a slight loss in depth from the greatest exposure time to

the least exposure time. Cloth Fast Blue R. showed very little difference over the same range, with a slight increase in depth of color in the samples treated for the longer time. Celanese Pure B, when dyed on the heat treated samples, was progressively lighter, greener and duller with increased time of contact. Eastone Blue B. G. F. also showed decreased absorption with increased time of contact, the samples with the longest contact time being much lighter and greener, and the samples pretreated for the longest time being about one-half the shade of the untreated control.

The samples heat treated in the relaxed state showed greater differences in the dyed samples than material heated by contact with the metal cylinder. There is first a decrease in dye absorption when using Cloth Fast Blue R; then with increasing degradation of the nylon, a very great increase, amounting to about three times that of the 0.5 per cent dyeing on the untreated control. The time of exposure to the heat treatment also has a great effect on the dye absorption. At 400° F.—the point at which the tensile strength of the nylon starts to decrease—the dye absorption increases. (This dyestuff, Cloth Fast Blue R, should be of value in determining the amount of damage done to nylon by heat.)

The acid dye, Brilliant Alizarine Sky Blue B, showed a decrease in the depth of color on the fabric with increased time of exposure to dry heat. The final color of the dyeings produced with Eastone Blue B. G. F. was not influenced by the yellow color of the nylon caused by heat treating at the higher temperatures.

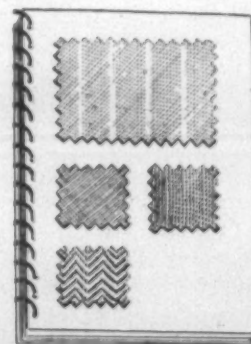
These dyeing tests showed that heat-treated nylon fabrics can be dyed without forming creases in the fabric, provided the temperature of pretreatment is sufficiently high. They showed also that some dyestuffs dye heat-damaged nylon to a greater depth than undamaged nylon, whereas other dyes show a loss in color value with increasing temperature of pretreatment.



Dyeing and Printing

— A Comparison —

By O. B. CHARLES — PART TWO



THE initial article (TEXTILE BULLETIN, Feb. 1, 1946) gave a brief survey of the dyeing and printing methods used on applying substantive (direct, developed and after-treatable-formaldehyde) colors. Application to cotton, viscose and cuprammonium rayon were stressed with a few remarks on wool-acid colors, and their application was covered briefly on wool and casein fibers with remarks as to special uses on viscose and cuprammonium rayon. This article continues the application and uses of acid colors and covers acetate colors with reference to their dyeing and printing procedures.

Acid Colors On Acetate

Over the past few years dyers have developed some novel methods for applying a selected group of acid colors to acetate rayon yarns and staple fiber, though acid colors as a dyestuff possess no actual affinity for the acetate rayon and under usual dyeing conditions resist acetate a clean white. For the hosiery, knit goods and weaving trades requiring fast-to-cross dyeing and bleach dye acetate shades, acetate rayon in skein form has been dyed using selected acid colors

dissolved in solvents such as a 65 to 80 per cent alcohol solution or a 25 to 50 per cent acetic or formic acid solution. The acetate rayon is immersed in these solvent type dyeing assistants a very short period (otherwise the yarns are partially plasticized and become stiff and boardy). Alcohol and acetic or formic acid swell the acetate rayon and the very soluble acid color solution penetrates through and into the fiber. Then on removal from the solvent bath, the swollen fiber is rinsed and soaped off in a synthetic detergent bath, thus reducing the acetate fiber to its natural size while the acid dyestuff remains within the fiber, giving the desired dyed effect.

A more recent development of the Tennessee Eastman Corp. used zinc thiocyanate on the dyeing of acetate rayon yarns, in the skein and package form, and the staple fiber in pressure dyeing machines. This method is still in the experimental stage but appears of value for dyers in obtaining dyed acetate rayon with selected acid colors that are resistant to atmospheric gas fading and faster to cross-dyeing and washing than obtained with available direct dyeing acetate rayon colors.

The use of acid colors for printing acetate is of no inter-



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est, though later developments may take advantage of the swelling action of a steam ager on acetate rayon.

Acid Colors On Nylon

A large number of the very soluble types of acid colors dye nylon in a mildly acid and neutral bath with a suitable dispersing and leveling agent in the bath. The highly oriented and high tenacity type fibers dye at different ratio of exhaust on acid colors. The chromiferous type of acid colors dye nylon along similar pH values as on the standard type of acid colors. These colors are represented by the Palatine, Chromacyl and Neolan type and the dyed shades, though not always as level and uniform as shades dyed with acetate colors, as a whole possess better light and wash fastness than obtained from dyeing nylon with standard acid or acetate dyes. Nylon dyed with standard acid or chromiferous acid colors, especially on blues, violets and light green shades, usually possesses superior fastness to atmospheric gas fading than nylon dyed with acetate colors.

P. L. Meunier, in special development work on the printing of nylon, reported that selected acid colors using urea with properly prepared British gum or any like textile gum were printed, dried and given sufficient steaming before washing and finishing. Some of the acid colors give satisfactory color yield as well as fair to good washing and light fastness. Some acid colors mentioned by Meunier as being of value were:

	C. I.
Metanil Yellow M	138
Chromacyl Black W	(Chromiferous)
Anthraquinone Green G	1078
Acid Fast Blue 5R	289
Anthraquinone Blue Sky	1088
Anthraquinone Blue 3G	
Pontacyl Light Yellow 3G	630

Dyeing of Acetate Colors

The acetate colors now used by dyers and printers are highly ground water insoluble dyestuffs that may be dispersed in a water medium highly satisfactorily when a special dispersing agent is used. These colors are known under two classes as direct dyeing and developed types. There is a complete range of direct dyeing colors suitable for the dyer and printer while there are only blacks, navy and maroons available in the developed colors. One of the weaknesses of the direct dyeing acetate colors is that the Anthraquinone and Amino type acetate blues, violets and bright reds are sensitive to atmospheric gas fading both in the dyed and printed materials. There are various amine compounds which may be used in aftertreating direct acetate dyed or printed materials and which resist the shades against atmospheric gas fading. Some of these amine aftertreatment compounds decrease the light fastness of substantive (direct) colors that may be used on viscose or cotton in an acetate rayon-cotton or viscose rayon blended goods. Also, they affect the original dyed shade of the acetate color before aftertreatment. At the present time there are only two acetate blues that are fairly fast to atmospheric gas; these products are made by Geigy and Tennessee Eastman.

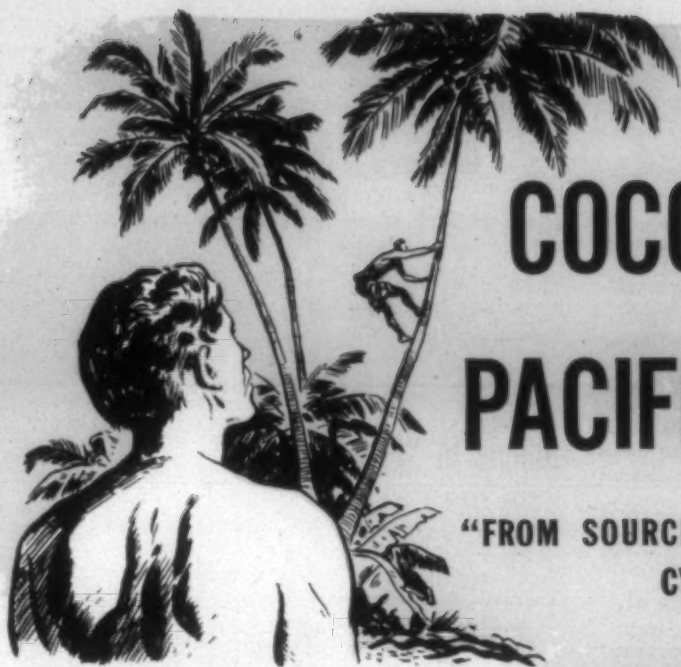
Dyers apply both the direct dyeing and developed acetate colors on yarn skeins chiefly and to a limited degree to the staple fiber. These highly dispersed water insoluble acetate dye powders are pasted up with a warm (120° F.) diluted solution of a synthetic dispersing agent (Nacconal, Igepon, Gardinol, Triton or like compound), then further diluted

with hot water at 140° F. to 180° F. (preheat water to be used; never heat concentrated acetate color solution directly with live steam). Stir thoroughly and strain through light-weight cloth or metal sieve into dyebath ready for use. With the prepared acetate color, add one per cent or more of suitable penetrant and dispersing agents, start the dyeing at 120° F., raise to 180° F. to 200° F., running one to two hours before sampling for shade. If shade is correct, then the steam is shut off and the dyebath is cooled by flushing over with cold water until goods are cooled slowly, otherwise the all acetate or part acetate goods may cool too quickly, thus causing "crock" marks. These marks are actually split and distorted acetate fibers which result from rapid cooling of the hot, swollen acetate fiber which is actually in a soft plastic condition while dyeing in a hot bath. Dyed acetate yarns and staple should be hydro-extracted a short period only, for the acetate fiber does not hold water or hygroscopic moisture as does cotton or viscose rayon and too long and vigorous hydro-extraction will make for crack and "broken-marking" throughout the finished yarn or fabric.

The dyeing of all acetate rayon piece goods is usually carried out on the dyebeck in rope form or the jig in open width along similar dyeing procedure as outlined. On goods containing cotton or viscose rayon where substantive (direct) colors are used in the dyebath with acetate colors, the acetate colors must be carefully selected as to stability against dyeing temperatures of 200° F. and the addition of common salt to bath used for exhausting the substantive colors. Many direct acetate blues, reds, rubine and violet are sensitive to common salt, which tends to break down the dispersed acetate color "solution" and precipitate these colors on the acetate and other fibers as semi-tarry substances. This is controlled by careful checking of the dispersed acetate color solution through adding common salt and testing it at 180 to 200° F. over prolonged periods of one to three hours, which is the time sometimes required by a dyer to finish up a blended fabric for union dyed shades. The dyed acetate goods must be dried at moderate temperatures and slower rate of speed than used on cotton and other rayon materials.

Developed acetate colors are dyed directly, then diazotized in a cold bath containing five per cent sodium nitrite (dissolved) and ten per cent muriatic acid (22° Beaume). Enter chemicals in order listed, run cold for 20 to 30 minutes, drain bath, rinse thoroughly in cold bath. Keep away from indirect or direct sunlight. Prepare fresh bath for development, using three per cent Developer BON (Beta Oxy Napthoic acid; dissolve with equal amount of ammonia or one-half to three-quarters as much caustic soda flake). Strain dissolved BON solution into cold bath. Add sufficient acetic or formic acid to make bath acid to litmus paper (approximately five to ten per cent) and of cloudy appearance. Start development cold, raise to 140 or 160° F., according to colors being developed, run 20 minutes at maximum temperature, check for shade, cool slowly by flushing with cold water until goods are cold, rinse off with a hot synthetic detergent bath at 160-190° F. No alkalis should be used, as it tends to bronze developed black and navy shades. Properly dyed, developed and soaped off developed acetate shades should be free of crocking.

Acetate dyes are water-insoluble powders and are dyed from a dispersed water bath at high temperatures and for this reason are not satisfactory (Continued on Page 65)



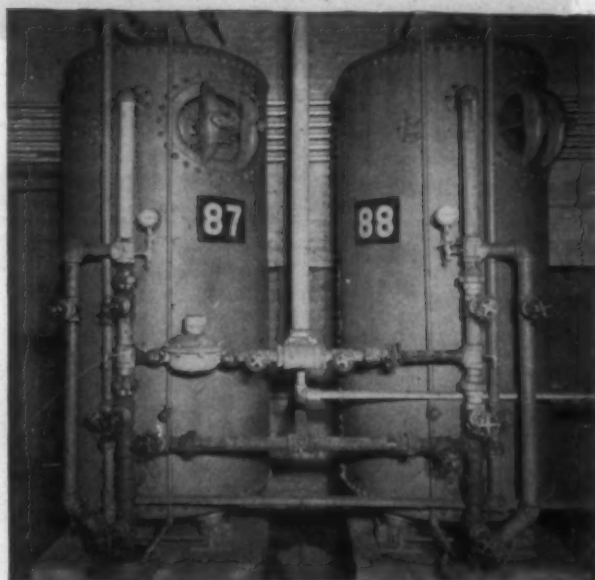
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textile bulletin

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Overcrowded School of Textiles

The development of the School of Textiles at North Carolina State College, Raleigh, has been very rapid since it began to receive the financial support of the North Carolina Textile Foundation. The school's teaching and research staff is now composed of outstanding men both in the field of education and research.

It is expected that the textile schools at Clemson College and Georgia Tech will soon be developed to the point that they will be the equal of the School of Textiles at North Carolina State College, but they waited for the ending of the war to make their plans, whereas the institution at Raleigh began active development in the summer of 1943.

Apparently there is something in the theory that "if you build a better mouse trap the world will beat a path to your door," because from almost every state, and from ten or more foreign countries, young men, especially GI's, have recently flocked to the School of Textiles at North Carolina State College.

Last year the total registration was 93 but it jumped to 195 in September, 1945, 308 in January, 1946, and there are indications that registration at the School of Textiles will exceed 400 when the spring term opens March 19.

There are also indications that, if they could be admitted, there would be in excess of 600 textile students in September, 1946, but neither the buildings nor the teaching staff can handle that number.

The North Carolina Legislature, which meets every two years, will convene in January, 1947, and will be asked to appropriate \$580,000 for an additional wing to the School of Textiles at North Carolina State College and for additional equipment, but, while it is almost certain that the appropriation will be made, it is not probable that either the additional floor space or the new equipment can be made available before January, 1948.

It is almost certain that many prospective textile students must be denied admission and the first move will probably be to limit students from outside of North Carolina to 25 per cent of the total.

We are not urging any father to send his son to the School of Textiles at North Carolina State College for the simple reason that there are already more prospective students than can be admitted until the capacity is increased.

We do know that there are some who have already made definite plans to enter and we suggest to them that it would be wise to file now applications for entrance in September, 1946. Fathers of GI's who are to be released from the armed forces in time to enter next September should now make application for them. Entrance blanks can be secured by writing to the Registrar, North Carolina State College, Raleigh, N. C.

The earlier the application is filed the better the chance of securing admission next September.

Unions In "Free America"

The *New York Herald* says:

Two brothers had built up a dairy business in Connecticut and had an enviable clientele because of the high quality of their product. They built the business with their own hands, and they continued to work with their own hands as many an American who is not afraid of work still does.

Then came the Teamsters Union to tell these brothers that they could no longer do any manual work at their own dairy, and, further, they must give all their drivers an increase of 50 per cent in pay.

To the two brothers, this could mean nothing but bankruptcy. As they did not employ enough drivers to picket the dairy, the Teamsters Union sent in 250 outsiders to surround the place with a picket line.

When old customers came to the dairy to buy their milk, cash-and-carry, the pickets drove them off and slashed their automobile tires.

The two brothers finally gave up the unequal fight. Their business was ruined, and they had no remedy at law, because the Teamsters Union is a law unto itself and is not responsible to any other authority.

The United States Senate has pigeonholed the Case Bill, which would protect men such as the brothers mentioned above and make the unions liable for their actions.

Every man who believes in freedom should write his senator and demand the passage of the Case Bill.

Conditions In Europe

Lester B. Struthers, European secretary of Rotary International, writing from Zurich, Switzerland, to Philip C. Lovejoy, secretary of Rotary International at Chicago, Ill., says:

British people who have been here in Switzerland, but more particularly Swiss who have recently been in England, tell us that the English are living on rations not so good as during the war and they are going without buying much needed additional clothing because they are trying to send so much of both food and clothing particularly to Holland, but also to Belgium and the British occupied part of Germany.

When I read about the lifting of all rations in the United States, except on sugar, I am wondering what our American people are really doing to help these people in Europe who not only are cold because of the lack of fuel, but are hungry by reason of getting only 1,200 or 1,300 calories per day as against the 1,500 that are absolutely necessary for living.

What do our people think about the condition of these people in Europe who have so little to eat? What are they willing to do about it? Or if they are all willing, what are they actually doing about it?

I believe that the Rotarians in America could do nothing better than to make large contributions of clothing and foodstuffs to be sent to these countries where people are starving. Cannot anything be done to stimulate sending more things out of the United States

to Czechoslovakia and Poland and Greece and Holland, etc., to say nothing of Austria and Hungary and Rumania and Bulgaria and Yugoslavia and Italy? Some may be enemy countries, but I am not thinking of coddling these people, but of preventing them from starving. Cannot we make contributions through relief organizations of things to be distributed to the ordinary people?

I doubt if you people at your distance can appreciate the terrible conditions that we are hearing about every day. Most of us fail to realize that many people in the different countries of Europe in losing their homes lost not only furniture and their clothing, but even the ordinary utensils of daily life. Yes, people can eat food without plates and knives and forks, and maybe they need the food more than they need the dishes, but here again is a way in which Rotary clubs in the United States could help.

Such things as needles, thread, scissors, and a braid that is used at the back of a pair of men's trousers when the heels wear them through at the bottom, aren't obtainable. We have got lots of such things in America. Maybe some of the people would like to send those through one of the relief organizations established for the different countries.

Perhaps I am unjust, but it does seem that perhaps our American people are heaving too much of a sigh of relief that the war is over and are returning too much to normal living without bestirring themselves to help hundreds of thousands of people who are cold and hungry and haven't the barest necessities for living.

Can't we try to stir our American people to some great action in behalf of these terribly unfortunate people in the liberated countries, and even in the enemy countries?

Our editor has known Lester Struthers for many years and is confident that he would not exaggerate conditions in Europe. Located in Zurich, Switzerland, and in close contact with men in every country in Europe, Mr. Struthers is in position to know the actual conditions.

It makes people happy to forget the war and they do not wish to think about the aftermath in Europe, but for the sake of humanity we should be made to realize the living and working conditions of the millions who felt the full impact of the greatest struggle in the history of the world. With wreckage all around it, Europe is unable to help itself.

We in America must be made to realize the condition of the peoples of Europe and we cannot afford to ignore the terrible suffering which now exists.

The Washington Muddle

Under date of Feb. 14 a veteran correspondent at Washington, D. C., a man who has a reputation for fairness and impartiality in reporting and forecasting, wrote a personal letter to a member of our staff.

The letter was not written for publication and we realize that it contains the personal opinions of one man, but the picture he paints is so terrifying to people who believe in a "free America" with fair play and justice for all, that we feel that we should present it to our readers.

The following are extracts from that letter:

This has been some day and some week. Brother Truman has been jumping like a jumping jack, first on one side and then on the other, first siding with Bowles and then with Snyder, unable to make up his mind, indecisive, and giving first to one and then to the other. It's been bitter, hot and bare-fisted among them.

Tonight at 10 p. m. the radio announced the new Truman policy—something I had waited for all day and all evening. I knew the situation so well, the line-up of the contending forces so well, and just what any shift would mean, that when they said Bowles is elevated and Porter shifted, I knew the significance exactly.

I knew all the time how this bird Truman was going to finally jump, and he didn't disappoint me a bit. I have known all week that on the showdown, Hannegan would throw his weight with Bowles, because Bowles is C.I.O.'s fair-haired boy, and he's virtu-

ally one of the C.I.O. brain trust. And C.I.O. is politically powerful, and that means votes in the ballot box election day, and that appears to be all that Hannegan is interested in.

This is the most far-reaching story that has busted in Washington since the war ended. What does it mean? It means continued upward pressures by C.I.O. on wages, continued resistance by G.M. and Big Steel and the rest, and this strike epidemic developing into bigger and better strikes. I am one who is convinced that Big John Lewis is going to pull a coal strike on April 1. I know the signs as I see them, and I've been closely watching John since 1919. His signs never fool you, no matter what he says.

Mr. Truman has lost completely his leadership in Congress. I might have said it had evaporated on Mr. Truman, if he ever had much of it. He has not only lost his leadership; he's got the Southern members, who are absolutely in the saddle, getting to the point where they are going to force strike and labor legislation through the Senate. One more big strike, and you are going to see the Case bill tied as a "rider" in a Senate to the first convenient piece of legislation that comes along, and accepted by the House.

It was no phony action of the House in passing that bill; they were in dead earnest, and they are not going to remain quite while Jim Murray's little labor committee in the Senate bottles it up and puts it in a pigeonhole.

Truman would like to get rid of Schwellenbach, but he doesn't know how, unless he should explode like Ickes did, which he will never do.

Much of the trouble of Truman today arises in the little Schwellenbachs and other small timers with which he has surrounded himself, plus his penchant for never making a decision himself if it can be left to some little Schwellenbach to do for him.

You know and I know the thing for Truman to have done on V-E or V-J Day was to freeze wages and everything else. Instead he listened to C.I.O., which told him there was going to be vast unemployment and possibly bread lines, and he believed it. Unbelievable as it sounds, he never once grasped the explosive force tied up in the goods shortage market, plus the explosive force of vast mustering out payments, plus the enormous amount of spending money in workers' pockets.

Truman is not going to be able to control the condition of inflation, because he doesn't know how, and he is timid, vacillating, indecisive, and won't make decisions if he can find somebody else who will make one for him. And so things, which means prices, et al, are going up and up, and then they are going to turn and go down and down and down and down.

That should not be the case, and with firmness and decision it would not be. Bowles is stubborn and mulish, and closely allied with the C.I.O., and he will dominate the situation. In reality, he hopes to be the Democratic presidential nominee in 1948, and of course he is depending on C.I.O. influence to win for him. Truman is no match in stubbornness for Bowles. And so, what this decision tonight means is that Bowles is virtually moving into the White House right now.

TEXTILE SHOW IS POSTPONED

The management of Textile Hall Corp. has announced that the 15th Southern Textile Exposition, scheduled for April 8-13 at Greenville, S. C., has been postponed until a later date.

Another date for the show is to be announced following consultation with all parties concerned.

MILL NEWS

CONSTRUCTION. NEW EQUIPMENT. FINANCIAL REPORTS. CHARTERS. AWARDS. VILLAGE ACTIVITY. SALES AND PURCHASES

LINCOLNTON, N. C.—Carter Mills has completed installation of five new Foster 100-spindle winders, with paraffin attachment for knitting yarns. This equipment replaces nine older machines. A new Ace elevator also is being installed.

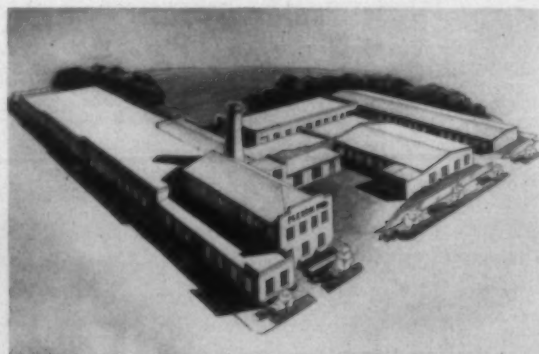
GASTONIA, N. C.—Burlington Mills Corp. has purchased from Textiles, Inc., the controlling stock in Flint Mfg. Co., Gastonia combed peeler yarn plant which contains 39,360 spindles. The Burlington Mills organization has agreed to purchase all other shares of stock which are offered at the price paid to Textiles, Inc.

STUBBS, N. C.—John Harrison, general superintendent of Dundee Mills at Griffin, Ga., has purchased Buffalo Mills, located four miles from Shelby. The Richardson interests, which sold the 3,000-spindle plant to Mr. Harrison, had operated it since last fall, when it was purchased from the Turk interests.

PETERSBURG, VA.—Limited production, to test mechanical equipment, has been started by Virginia Fibre Corp. The plant, which will produce automobile seat covers, will employ between 80 and 90 persons when full operation is effected early in March.

GASTONIA, N. C.—Resumption of operations by Waverly Braid Mills is expected within the next six weeks, as soon as damage caused by fire Dec. 11 can be repaired. Reconstruction plans call for new machinery, increased production as well as additional employees.

TUXEDO, N. C.—An addition of 20,000 square feet to Green River Mills, Inc., is expected to be finished by August. The new section of the plant will be one story, of brick and steel construction, and will provide room for new machinery now on order.



The new Plexon, Inc., plant at Greenville, S. C., sketched in the illustration above, is now in the process of being remodeled and will begin operations March 1. It will be devoted exclusively to the production of Plexon plastic coated yarn. Remodeling is being done by John A. McPherson Co. of Greenville. The plant will house new high-speed machinery which will increase production of Plexon yarn 400 to 500 per cent.

ROCKINGHAM, N. C.—Stockholders of Entwistle Mfg. Co., after lengthy negotiations, have agreed to sell Mills No. 1 and No. 3 to M. Löwenstein & Sons of New York City. The two plants contain a total of approximately 64,000 spindles and 1,500 looms. The No. 1 plant has been closed by strike since last September, while the No. 3 plant continued in operation; Mill No. 2 was sold by the company in June, 1943.

DANVILLE, VA.—Directors of Riverside & Dan River Cotton Mills, Inc., are reported to be preparing a recommendation to its stockholders for a major recapitalization. In addition, a change in the firm's name to Miriver Mills, Inc., is contemplated.

MAIDEN, N. C.—D. H. Mauney & Sons Mfg. Co. has been purchased by a new firm chartered as Maiden Spinning Mills, Inc. Incorporators of the new firm are N. M. Rudisill, Mrs. Bettie York Rudisill and S. M. Roper, all of Lincolnton, N. C. The plant contains some 5,500 spindles.

GASTONIA, N. C.—It is reported that Rex-Hanover Co. has completed a deal with Textiles, Inc., whereby the Hanover, Pinkney and Rankin Plants of Rex-Hanover, all located in South Gastonia and containing a total of some 30,000 spindles, will be transferred to Textiles, Inc., in exchange for the latter firm's Priscilla Plant, containing 29,424 spindles and located at Ranlo. There was also an unannounced cash payment by Rex-Hanover. This trade places operations of Rex-Hanover entirely in Ranlo, which is a suburb of Gastonia, while Textiles, Inc., acquires three plants which are near several other of its plants.

MT. HOLLY, N. C.—Construction of a new warehouse for American Yarn & Processing Co. here will entail the expenditure of approximately \$100,000. Covering a floor area of more than 30,000 square feet, the concrete block-brick veneer building will be one story high and located on a Piedmont and Northern Railroad spur track leading to the Mount Holly processing plant. The warehouse will be used to store general supplies for 11 company plants.

ELKIN, N. C.—Chatham Mfg. Co. of Elkin was over-assessed \$307,012 in excess profits taxes for the years 1941 and 1942, according to the Bureau of Internal Revenue.

CHARLOTTE, N. C.—An office building addition at Leaksville Woolen Mills, costing approximately \$35,000, will be built soon. The two-story addition will be 35 by 35 feet in size.

GAFFNEY, S. C.—Sale of machinery in the Gaffney Mfg. Co. plant has reduced equipment to 48,480 spindles and 1,400 looms. The mill is still idle as the result of a strike.

PATTERSON, N. C.—Yadkin Mills, Inc., will become Carolina Mfg. Co. March 15. H. G. Drake will be secretary-treasurer and Wade Fowler superintendent.

Numerous Textile Firms Are Organized

Listed below are a number of textile firms which have been organized recently in Southern states (some are incorporations of existing manufacturing plants, some changes in names of plants which have new operators, some merely jobbers of fabrics and yarns):

Rocky Mount (N. C.) Cord Co.—incorporation of existing plant, with authorized capitalization of \$500,000.

Rancho Cotton Mills, Inc., Salisbury, N. C.—incorporated with authorized capital stock of \$200,000, new name for Maple Mills operated by the McCanless interests.

Queen City Fabric Co., Charlotte—chartered to deal in fabrics as well as manufacture textiles with authorized capital stock of \$50,000.

Pinehurst Textiles, Inc., Asheville, N. C.—incorporated to manufacture and sell textile products with authorized capital stock of \$100,000.

Hannah Pickett Mills Co., Rockingham, N. C.—incorporation of plant now controlled by Robbins interests.

Ramie Mills of Florida, Inc., no location announced—formed in Massachusetts by Richard Whitney to manufacture yarns from ramie.

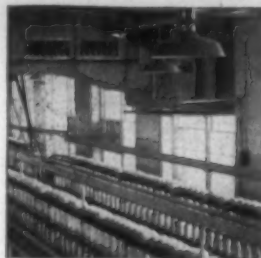
Fullerton Cotton Mills, Inc., Newnan, Ga.—capitalized at \$250,000 by A. L. Fuller, Sr., C. J. Smith and Walter D. Sanders, will manufacture textiles.

Atwood, Inc., Troutman, N. C.—capitalized at \$100,000, to buy and sell textile products.

Bo-Buck Mills, Inc., Wadesboro, N. C.—capitalized by the Little interests at \$100,000, to deal in textile products.

Culpepper (Va.) Textile (Continued on Page 66)

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PERSONAL NEWS

Charles W. Carvin of New York City, vice-president in charge of sales for Industrial Rayon Corp., has been elected to the firm's board of directors.

P. F. Merritt, formerly vice-president and treasurer, has succeeded W. R. Jackson as president of Mary Leila Cotton Mill, Inc., at Greensboro, Ga. Guy O. Hunter has been named executive vice-president.

Clyde Garrison has been made manager of all mill offices which are a part of the Burlington Mills Corp. organization. His headquarters are at Greensboro, N. C.

Frank A. Cook, for the past four years industrial relations manager for Slater (S. C.) Mfg. Co., has been promoted to the position of industrial relations director for the entire Carter Fabrics Corp. organization, with headquarters at Greensboro, N. C. At Slater he has been succeeded by Robert H. Atkinson, and Mr. Atkinson in turn has been succeeded by Allen Suttle.



Robert D. Franklin (left) has been appointed manager of the textiles, cotton, advertising and paper products department of the B. F. Goodrich Co. purchasing division at Akron, Ohio. For the past five years he has been in charge

of the company's textiles purchases.

Gardiner Hawkins has resigned as secretary and treasurer of the Rayon Yarn Producers Group. No successor has been designated.

Two Southern textile plant executives, William W. Goodman and Halbert M. Jones, have been awarded the Legion of Merit by the Army. Mr. Goodman, who is president of American Finishing Co. at Memphis, Tenn., served as a colonel in the Army Air Forces. Major Jones is president of Waverly Mills, Inc., and vice-president of Scotland Sheeting Mills, Inc., at Laurinburg, N. C.

Thomas H. West, president of Draper Corp., Hopedale, Mass., was elected president of the National Association of Textile Machinery Manufacturers at the group's annual meeting in Boston Feb. 14. Other officers named are Robert Leeson of Universal Winding Co., vice-president; Samuel Rockell of Davis & Furber Machine Co., treasurer; and Howard L. Smith of Draper Corp., secretary.

Dr. Frederick T. Peirce, director of research for the North Carolina State College school of textiles, Raleigh, has returned from an extended tour of Australia, where he inspected and formulated scientific programs for wool production under sponsorship of the Australian Commonwealth Council for Scientific and Industrial Research.

Jesse W. Stribling has resigned as editor of *Cotton* to resume duties as field engineer and sales agent for Universal Winding Co. in Tennessee, Alabama, Georgia, Louisiana, Mississippi and Texas. Prior to joining the magazine in 1943, he had been associated with the machinery company 19 years.

Cameron Hawley, advertising and promotion director for Armstrong Cork Co. at Lancaster, Pa., has been named "industrial advertising's man of the year" by the magazine *Industrial Marketing*.

Officers of the newest textile plant at Mooresville, N. C., Syntex Corp., are: John F. Matheson, president; A. Alex Shuford, vice-president; C. W. Gunter, second vice-president; W. M. Norman, Jr., secretary; and E. C. Beatty, treasurer and general manager.

R. F. Gardner has resigned as superintendent of Balston Yarn Mills, Inc., at Lincolnton, N. C.

W. P. Irwin has been named superintendent of the Chesnee (S. C.) Division of Saxon Mills. J. L. Jewell continues as superintendent of the company's plant at Spartanburg, S. C.

C. Edward Oram has been elected president of Jas. H. Billington Co., manufacturer of mill supplies at Philadelphia, Pa. He succeeds the late Thomas A. Dougherty. Albert Dierkes has been named assistant secretary and treasurer of the company.

Richard R. Kemp has joined Troy Whitehead Machinery Co. of Charlotte as chief of the firm's engineering department.

C. A. Gibson, formerly manager of the Pelzer (S. C.) Plant of the Kendall Co., has been named president and treasurer of Calhoun Mills at Calhoun Falls, S. C., now the property of Ely & Walker Dry Goods Co. B. C. Wilson has been named secretary of the mill.

David W. Anderson has retired as president of Pacolet Mfg. Co., with plants at Gainesville and New Holland, Ga., and Pacolet, S. C., and of Monarch Mills, with plants at Lockhart and Union, S. C.

Edward C. Michaels, Jr., formerly associated with Burlington Mills Corp. and American Viscose Corp., has been named assistant to the director of industrial and public relations for Marshall Field & Co. at Leaksville, N. C.

BACK TO CIVILIAN LIFE: J. A. White, three years in the Navy and formerly of Carter Fabrics Corp. at Greensboro, N. C., as plant superintendent for Slater (S. C.) Mfg. Co. . . . James E. Baker



(left), five years in the Army and formerly deputy chief of the clothing and equipment branch, Office of the Quartermaster General, as sales manager for the Greenville, S. C., branch of Morton Chemical Co., which covers South

Carolina, Georgia and Alabama. . . . W. D. Metts, four years in the Army, as night overseer at Mills Mill No. 2, Woodruff, S. C. . . . Frederick N. Spoerl, five years in the Army Signal Corps, as a member of the sales engineering staff of H. W. Butterworth & Sons Co., Philadelphia. . . . Marshall Cottingham, superintendent of Inman (S. C.) Mills prior to entering military service, as superintendent of Jackson Mills at Wellford, S. C. . . .



J. Frank Doubleday (left), 5½ years with the Navy, joins the administrative staff of the Institute of Textile Technology at Charlottesville, Va. . . . Charles A. New, now on Army terminal leave, resumes former duties with Judson Mills at Green-

ville, S. C. . . . John P. Dougherty, four years in the Army, as assistant in the woolen and worsted divisions of the American Viscose Corp. textile research department at Marcus Hook, Pa. . . . William H. Spencer, two years in the Army, rejoins Spartan Mills at Spartanburg, S. C., March 1 as overseer of weaving.

Alfred O. Buckingham of New York City, vice-president of Cluett, Peabody and Co., has been elected 1946 chairman of the Brand Names Research Foundation.

Following the purchase of Prattville (Ala.) Cotton Mills by Robert J. Gurney of Gastonia, N. C., and subsequent chang-

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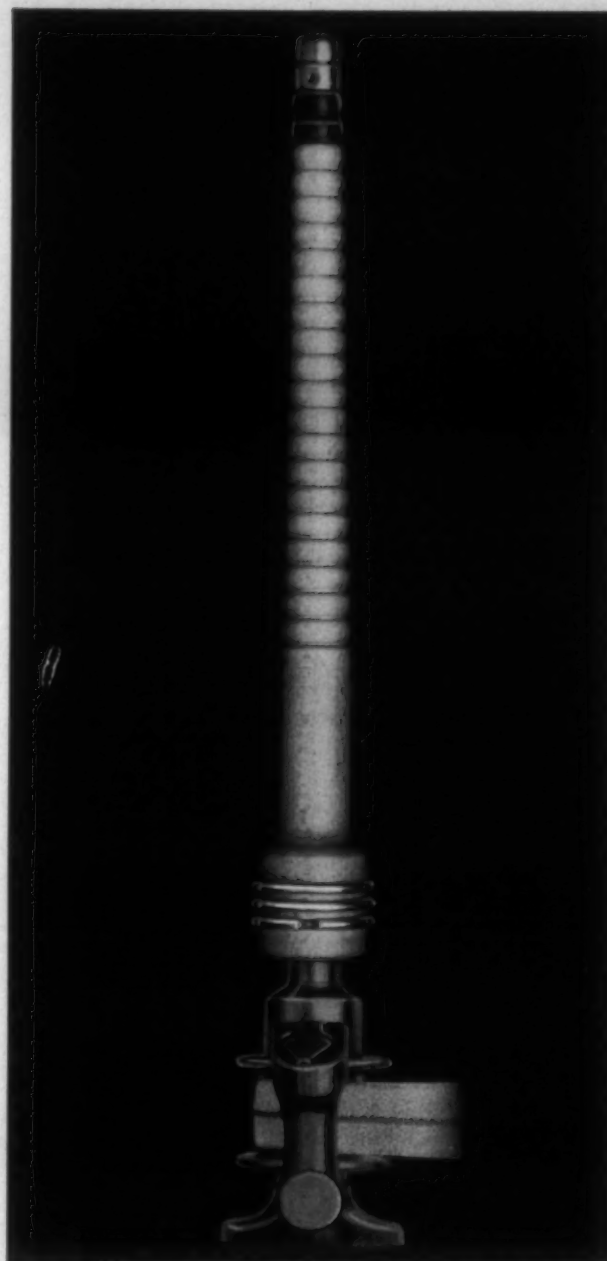


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ing of the name Gurney Mfg. Co., Mr. Gurney is now listed as president, Clyde C. Armstrong as secretary and treasurer, and Ward A. Bushbee as superintendent. . . . At Mooresville (N.C.) Cotton Mills, Mr. Gurney is now president, Mr. Armstrong secretary and treasurer. J. Will Long of Gastonia is general superintendent and A. J. Beauchamp remains as superintendent.

Russell W. Boettiger has been appointed sales manager of the Leslie Co., manufacturer of regulators and controllers at Lyndhurst, N. J.

G. P. DeBrule, formerly superintendent of St. Pauls (N.C.) Rayon Mills, has become manager of Spinners, Inc., at Lowell, N. C., succeeding J. Lander Gray, Jr.

O. L. Ferguson has been appointed superintendent of Pendleton Mfg. Co. at La France, S. C., succeeding Carl Espeig.

C. L. Gaffney has resigned as overseer of weaving for Leward Cotton Mills, Inc., at Worthville, N. C.

William G. Stanton has been made general manager of the Appleton Co. at Anderson, S. C. Frank McGarahan has been named assistant treasurer.

Jake Stiles has been promoted from second shift weaving overseer to cloth room overseer at the Dallas plant of Texas Textile Mills.

W. L. Taylor has resigned as superintendent of Monroe Mills Co. and Union Mills Co. at Monroe, N. C.

OBITUARY

Leavelle McCampbell, 67, outstanding figure in the cotton textile market, died suddenly Feb. 14 in New York City. He had been president of McCampbell & Co. since its inception in 1923, and was chairman of the board of Graniteville (S. C.) Co. at the time of his death. Throughout his career he was very active in the affairs of trade organizations, and was a former president of the Association of Cotton Textile Merchants of New York. His wife, two sons and a daughter are among survivors.

Robert F. Craig, 68, president of Lola Mills, Inc., at Stanley, N. C., and Gaston County Dyeing Machine Co. at Gastonia, N. C., died Feb. 8 in a Charlotte hospital following an illness of several months. He is survived by three sons, a daughter, three brothers and two sisters.

N. Arthur Laury, a production executive for the Calco Chemical Division of Cyanamid Co. at Bound Brook, N. J., prior to his retirement in 1945, died last month at Hollywood, Fla. He is survived by his wife and a son.

Robert R. Jenks, 57, a director and official of several textile machinery firms and textile manufacturing plants and president of the former Fales & Jenks Machine Co., died Feb. 11 at Providence, R. I. Survivors include his widow, two sons and a daughter.

James E. Stone, 41, superintendent of Aragon-Baldwin Mills at Rock Hill, S. C., died recently. He is survived by his widow, mother, daughter, son, three brothers and a sister.

John M. Gladish, whose inventions in the field of tufting machinery are credited with originating the chenille products industry, died recently at Chattanooga, Tenn. Illness brought about his retirement several years and he had not been active for some time.

Andrew C. Allgood, 77, former superintendent of Henderson (N. C.) Cotton Mills, died recently in a Richmond, Va., hospital. Last rites were conducted at Henderson.

William W. Carman, Jr., former assistant chief of the textile division, Bureau of Foreign and Domestic Commerce, United States Department of Commerce, died recently at Summit, N. J.

William A. Heartt, pioneer in adapting cotton processing equipment to the handling of rayon, died recently at Hillsboro, N. C. His widow survives.

Alfred H. Robbins, 71, former general manager for Springs Cotton Mills at Chester, S. C., died Feb. 3 at Chester. His half-century career in textile manufacturing included supervisory positions in a number of Southern plants prior to his retirement. Survivors include his widow, four sons, two daughters, three grandchildren and two sisters.

For the Textile Industry's Use

EQUIPMENT — SUPPLIES — LITERATURE

Bell Buys Klauder-Weldon Line from Butterworth

H. W. Butterworth & Sons Co. of Philadelphia, Pa., announces that its Klauder-Weldon dyeing line of machinery has been sold to William E. H. Bell. Manufacture of this line of machinery, which consists of circulating apron and rotary type skein, scouring, bleaching and dyeing machines, will be discontinued by Butterworth. Mr. Bell also will manufacture raw stock, roll dyeing, bleaching and washing machines. These were all formerly made by the old Klauder-Weldon Co., which Mr. Bell managed prior to the acquisition by H. W. Butterworth & Sons Co. in 1926. Since that time, he has managed this division for Butterworth. The purchase includes all drawings, patterns, jigs and fixtures, etc., necessary for the manufacture of these machines.

Mr. Bell will be located at Adams Avenue and Leiper Street, Philadelphia.

Calco Offers Improved Metallized Fast Color

A new addition to the Calco line of metallized dyes, Calcofast Wool Bordeaux RB Conc., is featured in an announcement just issued by the Calco Chemical Division of American Cyanamid Co., Bound Brook, N. J. It states that the fastness to light of Calcofast Wool Bordeaux RB Conc. is very good and is equally fast to washing, sea water and sea water spotting.

The exceptionally satisfactory all-around fastness properties of this new color is recommended particularly for the better grades of men's and women's wear, tropical suitings, knitting yarns, bathing and sweater yarns and upholstery fabrics. It has been recommended

to manufacturers of carpets for steamships, airplanes and carpets for the seashore.

The new Calco color announcement contains detailed information on the general fastness properties as well as full instructions for the application of this new improved color. Copies may be obtained by writing the Advertising Department, Calco Chemical Division, American Cyanamid Co., Bound Brook, N. J.

Brown Instrument Expands Facilities at Philadelphia

Installation of \$500,000 in new manufacturing, processing and development equipment, started in 1945, will be completed this year, according to Henry F. Dever, president of Brown Instrument Co. During the past year, said Mr. Dever, the company acquired

and installed \$250,000 in new and modern machine tool equipment, constituting, he added, part of the recently announced overall expansion plan of the entire Honeywell organization. The Philadelphia division will retain additional branch sites, acquired during war years, it was added, and will make other organizational changes for greater worker comfort and operational efficiency.

Celanese Corp. Is Given Navy Achievement Award

The U. S. Navy Certificate of Achievement "in recognition of exceptional accomplishment" and "of meritorious contribution to the national war effort" has been awarded the Celanese Corp. of America, producer of textiles, plastics and chemicals. Comdr. S. J. Singer, in a recent letter to Harold Blancke, president of Celanese, declared that the certificate "signalizes the Navy's recognition of the splendid effort put forth by the men and women of your organization in support of the war production program. We hope you will express to these men and women the Navy's sincere appreciation and thanks."

Dye Demand Is Now At All-Time Peak

Demand for dyestuffs is at an all-time peak, George W. Burpee, president of General Aniline & Film Corp., said recently. Pointing out that his company's plants at Grasselli, N. J., and Rensselaer, N. Y., are now producing at capacity. He said that production last year was the highest in the company's history, with the single exception of the war year 1944, and was more than 200 per cent above production in 1941, the last peacetime year. Currently the company's total employment including the Ansco and Ozalid divisions is at a new high, with more than 9,000 persons on the payroll.

"Insistent demand for dyes today from the textile, paper, leather and many other industries finds the American dyestuff industry in a far better position to meet all domestic requirements than at any peacetime period in its history," Mr. Burpee said. "However, with changed conditions in recent months the industry as a whole has not been able to set aside quotas for export and there remains a large and unfilled export demand." Mr. Burpee said that

the American dyestuff industry through improved manufacturing processes is producing larger quantities of dyes with the same equipment than it was several years ago. In some instances, he said, raw materials shortages are hampering production. Although his company's production has been unimpaired by labor troubles, strikes in the chemical industry have affected the availability of raw materials and the steel strike may impede General Aniline's expansion program.

Mr. Burpee revealed that virtually

all dyes being used in this country today are made by American dyestuff manufacturers, unlike the period after World War I when there was a rush to buy European dyes. "This is a concrete indication of America's new position of world leadership in dye making," Mr. Burpee pointed out. "Moreover, our ability to meet requirements of textile manufacturers is a further assurance that no foreign dye producers will jeopardize the leading position of the American textile industry. We are today making some 3,000 different



Wrap, Strap and Ship ... and add an EXTRA PROFIT

The money you don't spend in the shipping room and in transit for needless bulk and weight is only part of the money you save by using Stanley Steel Strapping, Tools and Accessories. You also save precious time and labor. Bolts of cloth are strapped together into one compact, easy-to-handle, low-rate package in a fraction of the usual time... five seconds per strap to loop it around the package, "cinch" it tight, cut it and seal it. Write for full details on Stanley Steel Strapping, Tools and Accessories. The Stanley Works, Steel Strapping Division, New Britain, Connecticut.

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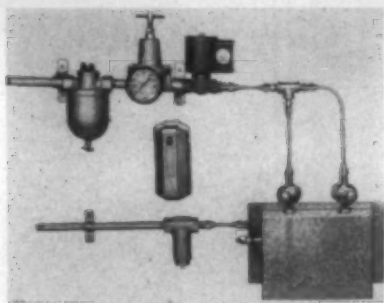
Trade Mark

STANLEY STRAPPING SYSTEM

dyes and dye intermediates to meet the insistent and growing demand from manufacturers who are turning out goods which answer the consumer's peacetime demand for color."

Spraying Systems Offers New Humidifying Unit

What is described as an efficient, low-cost industrial humidifying unit has been introduced by Spraying Systems Co., 4021-23 West Lake Street, Chicago 24, Ill. It is said to introduce a departure from conventional meth-



ods in that the entire item is delivered ready for installation. It is available in two or four-nozzle units with humidistat control and nozzles which can be set at various angles to increase efficiency of moisture distribution. Siphon-type humidifying nozzles are used which utilize compressed air, mixed externally, producing a fine, round spray. A complete two-nozzle unit is illustrated. Complete information will be sent on request to the company; specify Catalog No. 22.

E. F. Houghton Adds To Manufacturing Plant

Opening of a five-story addition to the plant of E. F. Houghton & Co., oil, chemical and leather manufacturer, was announced at the annual stockholders' meeting of that company held at 303 W. Lehigh Avenue, Philadelphia, Pa. The building was recently acquired from North Bros. Mfg. Co., and is located at North American and Somerset Streets, opposite the Houghton main plant. It will be used to house equipment for the manufacture of synthetic detergents, and also for additional warehouse space.

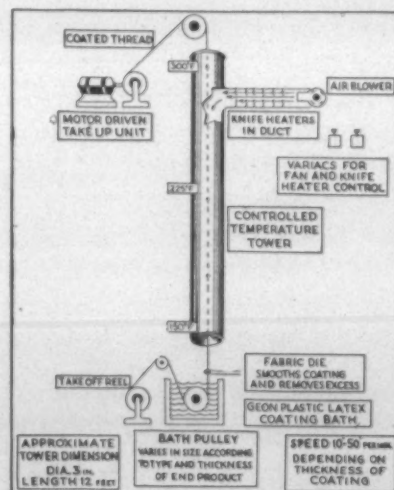
At the election held during the meeting the following officers and directors were re-elected: A. E. Carpenter, president; G. W. Pressell, executive vice-president; Dr. R. H. Patch, vice-president in charge of operations;

D. J. Richards, vice-president, sales; E. A. Carpenter, secretary; W. F. MacDonald, treasurer; C. P. Stocke, assistant secretary, and Miss M. A. Healey, assistant treasurer. L. D. Holland, H. E. Sanson, H. B. Fox, C. H. Butler and W. A. Bohne were re-elected to the board of directors.

Provided unsettled conditions over the country are improved at an early date, good prospects for 1946 were predicted in the report of President A. E. Carpenter to the stockholders.

Geon Resins Adaptable For Textile Purposes

Plastic latex made with Geon polyvinyl resins is now adaptable for the impregnation or plain coating of thread, yarn, string and wire, it is announced by B. F. Goodrich Chemical Co., Rose Building, Cleveland, Ohio. Cords and threads of fiberglass, nylon, silk, cotton, wool and rayon have been successfully coated and a variety of uses suggested, according to John R. Hoover, general sales manager of plastic materials. A technique for stranded materials somewhat similar to that used with plastic latex in ordinary fabric coating is employed. A thin, even coat of Geon plastic latex is applied to the thread or cord and heated, preferably in a tower having a graduated temperature range from 150 to 300 ° F. This method yields optimum physical properties, while fair properties can be attained with a uniform temperature of 200° F. The company has devised a

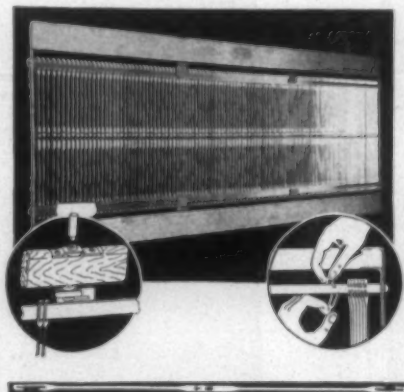


tower apparatus (see cut) in which this variable regulated temperature range can be most satisfactorily employed, and through which the material can be passed at from ten to 50

feet a minute, depending on the thickness of the coating. Layout of the apparatus will be furnished to those interested. Textile fibers coated with Geon plastic latex are grease, moisture and abrasion resistant, permeable when used in woven fabrics and have greater durability than when uncoated. Among first products on which the new process may be used are screening, woven upholstery fabrics, tarpaulins and fish lines.

Steel Heddle Markets New Drawing-in Unit

Steel Heddle Mfg. Co., with plants at Philadelphia, Pa., Greenville, S. C., Atlanta, Ga., and Montreal, Canada, has invented, engineered and placed on the market a unit consisting of a frame and the accompanying heddles by which flat steel heddles may be used with the new Barber-Colman drawing-in machines now on the market. It is said to be the result of years of careful research and experimentation, and then months of actual experience with this equipment in many plants in the country proves it to be a perfected item.



The frame (as shown) is of special design and construction, the lock hook being of cantilever construction, having nothing to interfere with the sliding of the heddles from one end of the frame to the other. The adjustment of the rod lock hook is not only quickly accomplished, but positive once it is in position. It is accomplished by the mere turn of a key which engages a slotted stud. The heddle bar is adjusted to the exact degree or tension desired and is locked firmly in position. The heddle rod can be removed or fastened in the frame by unlocking the spring wire hooks and pushing the rod to one side. The rod hooks or supports and the heddle rods unlock automatically.

Mounting of new harness is describ-

ed as speedy and simple. The heddles are first laid flat, heddle slot openings face down, and key holes up. The required number of heddles per shaft are then transferred to the thin tempered transfer rods and retransferred on the frame heddle rod. If a change in count is desired in the heddles, it can be accomplished by inserting the transfer rods in top and bottom heddle slots, thereby preventing errors, loss of time and saving labor.

Firm's Chemical Products Division To Be Expanded

Intention of Goodyear Tire & Rubber Co., Akron, Ohio, to create a chemical products division, construct a \$1,000,000 chemical products division development laboratory and construct a \$3,000,000 plant for the conversion of vinyl chloride copolymers and other resins into films, sheets, etc., has been announced by the company. C. P. Joslyn will be manager of the new division. Ground already has been broken for construction of the new laboratory, and the \$3,000,000 conversion plant is now in the design stage, with a prospect of being under construction within a few months. Dr. C. W. Walton of

the Goodyear staff has been named manager of the laboratory, which Dr. R. P. Dinsmore, vice-president in charge of research and development, says "will bridge the gap between scientific discovery and industrial application." The laboratory will be of brick and stone construction, with laboratory space for about 75 scientists.

Charlotte Firm Named Surplus Resale Agent

Textile Mill Supply Co. of Charlotte has been designated by the War Assets Corp. as government agent in the resale of government owned surplus machine tools and production equipment under the redistribution program recently approved by the Surplus Property Agency and the Reconstruction Finance Corp. The Charlotte firm was among 500 firms throughout the country who have been assigned contracts to act as government agencies.

New Steamer Is Described In Pamphlet By Mathieson

An eight-page illustrated pamphlet describing the steamer developed by Mathieson Alkali Works for continu-

ous open-width processing of cotton and rayon fabrics is now available on request. The pamphlet discusses the construction and operation of the steamer, which is designed to eliminate both kier and jig scouring. It is stated that all widths of cloth may be prepared for conventional bleaching or dyeing in one alkaline steaming and that the steamer may also be used for any of the hot bleaching processes. Copies of the pamphlet may be obtained from the company at 60 East 42nd Street, New York 17, N. Y.

New High-Test Calcium Hypochlorite Is Marketed

A new high-test calcium hypochlorite, containing a minimum of 70 per cent available chlorine, is now available for civilian use, according to an announcement by the Columbia Chemical Division of Pittsburgh Plate Glass Co. Now marketed under the trade name Pittchlor, the product previously had been requisitioned by the armed forces in very large quantities as a bleach, germicide and disinfectant. It also found wide usage in the shrink resistance treatment of military woolen socks. Charts showing typical solutions



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and dilutions are available by writing to Pittsburgh Plate Glass Co., Columbia Chemical Division, Fifth Avenue at Bellefield, Pittsburgh 13, Pa.

E. H. Jacobs Mfg. Co. Is Promoting Plyweld

E. H. Jacobs Mfg. Co. of Danielson, Conn., and Charlotte is sending to textile mills a paperweight made of Plyweld, the new material developed for use in picker sticks and other loom attachments. Plyweld is made under great pressure and atomic heat from sugar maple veneers, staggered to strengthen grain and streamlined to give a definite, predetermined ship or flex. Last year 17,000 box looms in this country and Canada were equipped with Plyweld. Use in mills, states the manufacturer, has proven that Plyweld picker sticks outwear an average of 15 hickory sticks.

Compound G-4 Advanced As Fiber Proofing Agent

Compound G-4, developed by Givaudan-Delawanna, Inc., 330 West 42nd Street, New York 18, N. Y., has been announced as a chemical proofing agent for application to awnings, tent-

ing and other fabrics whose fibers are susceptible to mildew and rot. This wartime development was used largely in the Pacific theatre as a mildew and rot preventive. According to the manufacturer, treatment with the new fungicide, Compound G-4, will substantially increase the life of many household articles and the agent likely will be used to treat many other products such as textile materials.

New Plasticizing Oil Marketed By Neville Co.

Nevillac TS, a new plasticizing resin having very little odor and good color retention, has been placed on the market by the Neville Co., Pittsburgh 25, Pa. A clear amber, resinous oil with a vague phenol odor, Nevillac TS is very viscous and slow flowing. It is soluble in practically all solvents except water, glycerine and higher polyhydric alcohols; and miscible with ethylene glycol and its di- and tri-derivatives. It is compatible with zein, cellulose derivatives, synthetic rubbers, terpene, alkyd, phenolic, vinyl and coumarone-indene resins.

This chemical is an excellent com-

pounding material to use with zein as it imparts waterproofness and lasting flexibility to it. The resulting protein film retains its alcohol solubility, gloss and slick-feel. Nevillac TS has an average molecular weight of 250. Specific gravity at 30.0/15.6° C. is approximately 1.08. Refractive index at 25° C. is 1.599. Distillation is essentially above 300° C. with slow decomposition beginning at about 370° C. Suggested uses for the new product are as a plasticizer, softener and impregnant.

Complete Catalog Shows Foxboro Instrument Line

The Foxboro Co. of Foxboro, Mass., has just issued Catalog 370, presenting the company's full line of recording and indicating instruments for measurement and control. Arranged for quick reference, and profusely illustrated, the sections deal with instruments for temperature applications, pressure, humidity, flow, liquid level, density, and other process variables. Control valves, planimeters, instrument accessories and supplies are included. This catalog is the first in which Foxboro has been able to show its line of Dynalog electronic instruments, the sale and use of which has, until recently, been limited to military applications. A complete list of the company's branches in North America and of its overseas representatives is given. Copies will be sent on request.

Fabric Shrinkage Control Get Much Attention

More than 100 woolen mills have submitted fabrics for test treatments with Lanaset resin for wool shrinkage control to the laboratories of the American Cyanamid Co. textile resin department at Bound Brook, N. J. Following successful tests, many of these firms are reported to be working out final problems of practical application in their mills, giving rise to a prediction that quantities of washable wool fabrics from these mills will appear on the market in the fall of 1946.

Washability of all types of fabrics is rated by department stores as the most important single quality desired by customers, according to a survey made by the company's textile resin department. Co-operating in the survey were 120 of the country's leading department stores in 35 states, representing

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Columbus 15, Ohio

opinions of merchandising managers, buyers and sales people, as well as top executives. Control of shrinking and stretching of rayon fabrics also was widely requested. Almost 60 per cent of the stores asked for a finish for acetate rayon preventing fading and streaking of blue and green shades that occurs in the presence of illuminating gas. Others expressed interest in creaseproofing, spotproofing, moth resistance, shine and mildew prevention.

Bristol Publishes New Post-War General Catalog

A new post-war general catalog entitled *Specification Index for Bristol Instruments* has just been published by Bristol Co., Waterbury 91, Conn. The catalog, No. W1800, contains 24 pages of information on the Bristol line of automatic controlling, recording, and indicating instruments and gives hints on how they can be used effectively to save time, and money and promote efficient operation. Specification data is given on each instrument listed. The booklet is liberally illustrated with line drawings, which

show basic methods of applying various types of industrial instruments.

Dexter Furnishing Copies Of Two Edelstein Papers

The Dexter Chemical Corp. has issued a reprint of two articles by Sidney Edelstein, its technical director. These are entitled: *A Test for Mercerization* and *The Effect of Aniline Black on Barium Activity Determinations*. Mr. Edelstein is a recognized authority on the mercerization process. Copies are available by writing to Dexter Chemical Corp., 819 Edgewater Road, New York 59, N. Y.

Application of Flock Contained in Booklet

Surface-coating with Flock is the title of a descriptive booklet, size 8½ x 11 in colors, just released by Rayon Processing Co. of R. I., Inc., manufacturer of printing and coating flock. Explaining that flock "consists of finely cut particles of synthetic, vegetable or animal fibers," the text goes on to point out how these particles of cotton,

rayon and hair may be adhered to any type of surface to produce coatings with the appearance and feel of suede leather, velvet, velour, fur, mohair, felt, carpeting, etc., in all colors. Contained in the booklet are swatches of flocked materials. Directions for applying flock are also included. Copies are available upon request to Rayon Processing Co. of R. I., Inc., 1040 Tremont Street, Central Falls, R. I.

Meadows Will Distribute Kidde Winder Control

Walter Kidde & Co., Inc., of Belleville, N. J., has announced the appointment of Meadows Mfg. Co. at Atlanta, Ga., as its Southern representative to distribute the Kidde tension and density control for winders.

A 25 per cent increase in production of pine oil to help in relieving the shortage by mid-year is expected to be achieved at the new plant of Hercules Powder Co. at Brunswick, Ga. The new manufacturing plant, scheduled for early completion, is being built at a cost of \$1,500,000.

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Low stretch cords—floating in rubber carry load, take shock.

Flexible cover takes wear, seals carcass.



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- 1—Butterworth 60' x 50" Tenter with Metallic Housing.
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- 1—Vertical Set of 21 Copper Dry Cans—23" x 101" Face.
- 1—Horizontal Set of 22 Copper Dry Cans—23" x 105" Face.
- 1—Vertical Set of 10 Tinned Iron Dry Cans—23" x 50" Face.
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- 1—Textile 2 Roll 44" Face Mangle.
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- 1—Werner & Fliederer Mixer—33" x 38" x 31" Deep.
- 6—Mixing Kettles 36" x 36", 42" x 42", 48" x 42".
- 1—Noble & Wood Pulp Beater.
- 1—Philadelphia Bag Dryer—64' x 23' wide.
- 1—Curtis & Marble 66" Disc Dampener.
- 2—Simpson 50" Batchers with Cutters.
- 3—Morton Raw Stock Dyeing Machines, 1-50 lb., 2-1000".
- 1—Sargent 96" wide x 50' long Raw Stock Dryer.

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By good North Carolina mill, experienced Barber-Colman drawing-in man on 20's to 30's warp yarns. State experience and the hourly wage will accept, and how soon applicant can report for work. Give telephone number or how you can be reached by telegraph.

ADDRESS "A. P.," CARE TEXTILE BULLETIN
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WANTED — Position as Superintendent of Yarn Twine or Weaving Mill. Age 38; sober and dependable. Address "Dependable," care Textile Bulletin, P. O. Box 1225, Charlotte 1, N. C.

WANTED—Job as Overseer of Spinning. Have had 12 years' experience as such. Can furnish best of references. Write "W. T.," care Textile Bulletin, P. O. Box 1225, Charlotte 1, N. C.

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POSITION WANTED as Superintendent; 38 years' experience in both spinning and weaving mills; 18 years on one job; best of references. Address "Weaving Job," care Textile Bulletin, P. O. Box 1225, Charlotte, N. C.

POSITION WANTED as Overseer or Superintendent Weaving; 25 years' practical experience on all cotton goods, wide sheeting, pillow tubing, drills, twills, sateen, on every model Draper loom, including latest one. Married, in good health; can furnish best references from top notch men. Write "O. S.," care Textile Bulletin, P. O. Box 1225, Charlotte, N. C.

WANTED—Position as Spinner or Carder and Spinner. Would consider Assistant Superintendent. Long experience in both; strictly sober; good habits; married. Can come on short notice; will go anywhere. Write "Spinner-Carder," care Textile Bulletin, P. O. Box 1225, Charlotte, N. C.

POSITION WANTED—Cotton classer and buyer desires position with mill as classer or buyer. Broad experience in buying, classing and warehousing. All kinds of cottons. Write "Classer," care Textile Bulletin, P. O. Box 1225, Charlotte, N. C.

MASTER MECHANIC AND CHIEF ENGINEER AVAILABLE—Experience includes four years as machinist in textile mill; six years as machinist in Navy; several years as chief engineer on ship in Merchant Marine; assistant superintendent and master mechanic in large public utilities company; charge of operation of large oil company power plant in South America. Write "Machinist," care Textile Bulletin, P. O. Box 1225, Charlotte, N. C.

POSITION WANTED as Overseer or Superintendent of Spinning, Spooling, Winding, Warming, Slashing. Experienced as assistant superintendent and buyer for 15,000-spindle mill; was U. S. Government Textile Inspector during war. Graduate with B.S. Degree in Yarn Manufacturing from N. C. State College. Can handle job as overseer or superintendent of most any plant. Good references. Write "K-T," care Textile Bulletin, P. O. Box 1225, Charlotte 1, N. C.

WANTED—Job as Second Hand or Assistant Overseer of Weaving, second or third shift; 12 years' experience, some I. C. S. training; experienced on both cotton and rayon; plain and fancy; old and late model looms. Age 42, married, one child. Will make change in radius of 150 miles. Can be available on short notice. Address "I. C. S.," care Textile Bulletin, P. O. Box 1225, Charlotte 1, N. C.

SPINNING ROOM MAN desires work as fixer or section. Have thorough knowledge of the mechanism of machinery, and would prove worthwhile in the upkeep of same. Am very sober; now employed but desire a change. Request an interview. Address "Mechanism," care Textile Bulletin, P. O. Box 1225, Charlotte 1, N. C.

Index to Advertisers

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Yarn mill, 2,000 to 3,000 spindles, now in operation.
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Two Allis-Chalmers Corliss Engines, 150 H. P. each, with direct connected generator, all in good condition.
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Cotton mill superintendents, assistant superintendents, overseers carding, spinning and weaving for mills in Cuba, Puerto Rico and South America.
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Westinghouse Develops Most Brilliant Commercial Lamp

The most brilliant lamp ever developed for general use, a 1,000-watt tubular bulb whose powerful yellow-green light streams from a mercury vapor arc the diameter of a cigaret, was announced recently by the Westinghouse Lamp Division, Bloomfield, N. J. The air-cooled lamp produces 60 lumens for each watt of electricity consumed, enabling it to pack the mightiest punch of practical artificial illumination in the world.

"Sixty thousand lumens, the lamp's total light output, is equivalent to the light cast by a canopy of 125 incandescent bulbs of 40-watt size, or three times the light output of a conventional 1,000-watt incandescent bulb," said Daniel S. Gustin, Westinghouse lamp engineering manager who designed the lamp. It has an arc stream, about twice as long as a cigaret; enclosed in a sturdy quartz tube which, in turn, is enclosed by a hard glass exterior tube. Overall, the lamp measures 14 inches long and is less than four inches in diameter. The lamp was de-

signed primarily for the lighting of high ceiling factories and other expansive areas where a high level of lighting with a minimum of reflectors is desirable.

Industrial Research Work Reported At New High

Public recognition of industrial research has reached a new high level, Earl P. Stevenson, president of Arthur D. Little, Inc., Cambridge, Mass., industrial research organization, told stockholders at that company's annual meeting. Research expenditures by private companies in the United States have risen to about \$750,000,000 per year during the war, according to government estimates, and this rate will be increased still further as soon as personnel is available, he said. Mr. Stevenson reported that the company, now in its 60th year, continues the steady growth it has experienced since it was founded in 1886 by Dr. Arthur D. Little, one of the earliest advocates of research by industry. Since 1935, the company has trebled in size and activity.



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Dyeing and Printing—A Comparison

(Continued from Page 48) for dyeing by padding. There has been considerable development carried out for increasing the dyeing speed of acetate colors by using various combinations of padders and continuous open width dyeing units but to date dyers get their best production and uniform dye lots on the dyebeck and jig.

Direct dyeing and developed acetate colors are prepared and dyed on nylon as on acetate rayon. Nylon fabrics and hosiery must be preset by treatment at advanced temperatures under steam or hot air conditions before the goods are prepared and dyed.

The Printing of Acetate Rayon

The direct dyeing acetate colors are printed directly and a limited number of these insoluble acetate colors may be discharged using zinc hydrosulfite (Parolite, Decroline and Formopon Extra). Dischargeable acetate colors must be selected carefully for freedom from sublimation during the steaming operation in a cottage steamer.

For direct printing of acetate, a 100-part solution is made up of one to five parts of direct dyeing acetate color, pasted up with dispersing agent; 60 to 65 parts of hot water added and stirred; this strained into 30 to 35 parts of British gum, mixed slowly (some dyes are best prepared with Gum Arabic) 1:3.

Print, air dry, preferably on wrapped cans to prevent color migration. Steam 30 to 60 minutes without pressure or at not over two pounds pressure. Remove, hot wash with synthetic detergent and finish.

For discharge printing of acetate colors (100 parts), use 20 to 25 parts of zinc hydrosulfite; 15 to 10 parts of water for solution; 60 to 55 parts of British Gum, 1:2; three parts of anthraquinone; and two parts of glycerine.

Print, dry in hot air dryer or on dry cans, steam in ager for 15 to 60 minutes without pressure, rinse thoroughly and finish. Printers have used intermittent steaming to prevent sublimation.

Due to the greater affinity and penetrative properties of acetate colors on nylon they can be printed directly as on acetate. Printers have found that the addition of urea and dispersing agents with solvent properties such as cellosolve improve the levelness and yield of acetate color on nylon. Acetate printed nylon does not possess equal light fastness to nylon printed with standard acid and chromiferous acid colors. The direct printing procedure is similar to that used on acetate rayon with variations in the type of printing gum used for the different acetate colors and types of goods.

The One-Story Building in Industry

(Continued from Page 36) the building will increase outward. If expansion is going to be upward, then the skylight should be omitted, since it will avoid the expense of removing it and filling it.

From a life-saving standpoint, fire hazards in a one-story building are less. Quicker release of workers from the building into the safety zone outside is possible. There are no stairway delays and complications; neither is there likely to be any serious injuries to workers jumping out of one-story windows in the emergency. "Large areas subject to one fire" is one large fire insurance company's practical

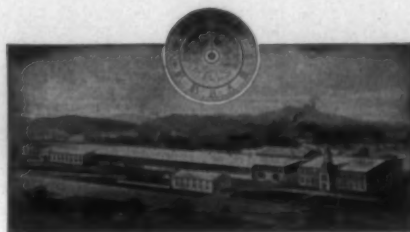
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objection to the one-story building. Adequate fire protection for a one-story building includes the following essentials: (1) Fire walls with automatic fire doors and openings to segregate the areas into smaller units. (2) Any building with a wooden roof requires automatic sprinklers. The fact of the building contents being non-combustible does not change the requirement of automatic sprinklers. Such a precaution minimizes the possibility of the entire roof being destroyed, causing same to cave in and spread to the entire interior. (3) Automatic sprinklers are desirable even when the one-story building is of the so-called fireproof type. A small amount of burnable material at some point could cause a damaging, if localized, fire.

The possibility of business expansion is unpredictable as to when it will occur, and how much additional space will be needed. The most that can be done by the time the original one-story building gets to the blueprint stage is to decide whether subsequent extensions are to be outward or upward—and stick to this decision. It will be cheaper in the long run. If the decision is to sprout side wings to the all-on-one-floor layout, each such annex should measure up to the architectural and other standards of the original plant building.

Numerous Textile Firms Are Organized

(Continued from Page 53) Mills — maximum capital is \$100,000. Officers, all of Richmond, Va., are: Benjamin Lovenstein, president; Harold A. Lovenstein, vice-president; and Rebecca A. Lovenstein, secretary and treasurer.

Carolina Yarn Mfg. Co., Gastonia, N. C.—authorized capital stock of \$250,000, to manufacture yarn and cloth.

Catawba Converting Co., Belmont, N. C.—to deal in textile fabrics with authorized capital stock of \$100,000.

Marchant Co., Greenville, S. C.—capitalized at \$50,000, to deal in textiles. Officers are: T. M. Marchant, Jr., president and treasurer; P. S. Marchant, vice-president; and W. P. Childers, secretary.

Hurt Mfg. Co., Rockmart, Ga.—to manufacture chenille products, operated and owned by Paul W. Hurt.

McLean Co., Inc., High Point, N. C.—to deal in textile products with authorized capital stock of \$100,000.

Sedgefield Fabrics Co., Burlington, N. C.—to deal in manufactured products with authorized capital stock of \$100,000.

Tower Mfg. Co., Landis, N. C.—producing bedspreads under partnership set-up.

Warren Combed Yarn Corp., Charlotte—to deal in textile products with authorized capital stock of \$50,000.

Archdale (N. C.) Mfg. Co.—to manufacture women's apparel and bedspreads.

Virgin Mills, Inc., Maiden, N. C.—authorized capital stock of 1,000 shares.

Florida Starch Plant To Utilize Potato

Extensive commercial production of starch derived from the sweet potato will start next fall in the new \$7,000,000 plant erected at Clewiston, Fla., by the United States Sugar Corp. Annual output of starch is expected to be 75,000,000 pounds. The starch and its derivatives can be used in a wide range of commercial applications, including adhesives and textile sizings.

Industrial Rayon Reports 1945 Operations

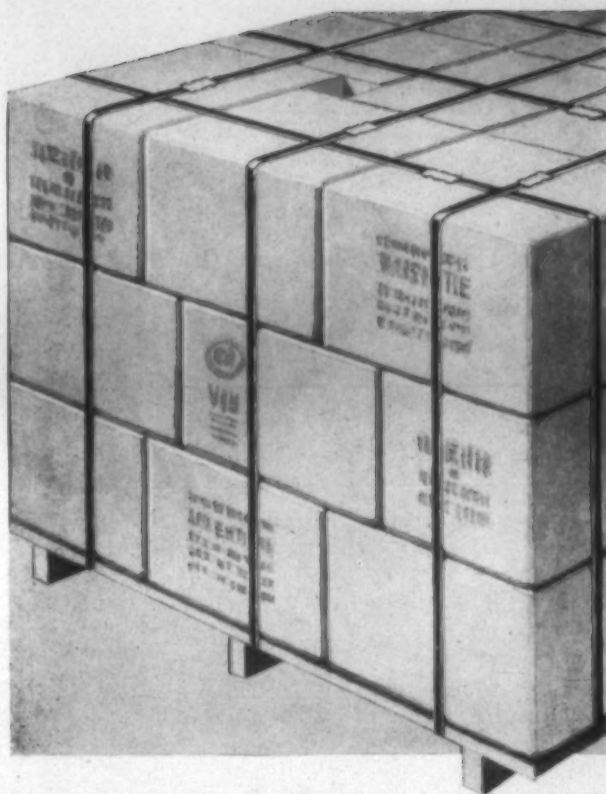
Industrial Rayon Corp. has reported net income for the year ended Dec. 31, 1945, of \$2,438,313, which after payment of preferred dividends is equal to \$2.62 per share of common stock. This compares with net earnings of \$1.85 per common share in 1944. Hiram S. Rivitz, president, in his annual letter to shareholders reported that \$500,000 (49 cents per share) of the company's 1945 income represented a down payment by Courtaulds, Ltd., of England on its purchase for \$5,000,000 of patent rights covering Industrial Rayon's continuous process in Continental Europe, Great Britain and its dominions. The balance is payable \$750,000 in 1946, \$1,250,000 in 1947 and \$2,500,000 in 1948.

The sale of continuous process rights in Cuba to Compania Rayonera Cubana for a consideration of \$1,000,000 has been negotiated since the first of the year, he reported. This is to be paid in amounts of \$200,000 each over a period of five years, beginning in 1946. "These sales evidence the decision of our company to make available to others our continuous process for the production of viscose rayon yarn," Mr. Rivitz said. "Our initial confidence in the merits of this process and its economic value from the standpoint of efficient production and superior merchandise has proved well justified. It is our earnest belief that in time the continuous process of Industrial Rayon will become standard procedure for the manufacture of viscose rayon yarn in many countries of the world."

The report reflected the accelerated amortization of emergency facilities costing approximately \$18,000,000 which were erected in Cleveland and Painesville during the war years for the production of tire yarn, cord and fabric. The company's election to complete the amortization of these facilities at Sept. 30, 1945, resulted in claims for refund of income taxes and a reduction in current tax liabilities totaling \$10,799,368. After this amortization adjustment, the new tire yarn, cord and fabric facilities were carried at \$3,825,011. A five-year bank loan in the amount of \$6,000,000 negotiated early in 1945 was paid in full Dec. 28, 1945. Net sales for the year 1945 totaled \$32,872,198, as compared with previous record sales of \$22,432,561 in 1944.

Commenting on the need for expansion to meet the critical shortage of textile yarns, Mr. Rivitz pointed out that the company has less than 20,000,000 pounds of continuous process capacity for this purpose in an industry now producing 250,000,000 pounds of viscose rayon textile yarns in the face of a potential demand for double that amount. "The result of this situation is quite obvious," he said, "We are unable to adequately supply even those mills which use modest amounts of our product, to say nothing of the larger accounts. It is therefore most desirable that we expand our facilities for the manufacture of yarn for textiles by the continuous process."

Prevailing high building costs, coupled with an O.P.A. ceiling price of 55 cents per pound on 150 denier yarn and the unwillingness of contractors to accept building contracts on a fixed price basis, were reported by Mr. Rivitz to be deterrents to the immediate realization of the company's announced plans for erection of a 30,000,000-pound capacity plant. He also pointed out that the limited capacity of rayon pulp mills would have to be expanded to insure an adequate supply of raw materials for a new plant.



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Textile Body Approves Jap Import Program

Confirmation of Gen. Douglas MacArthur's recommendation to Washington of a Japanese raw cotton import program of 340,000 short tons this year, starting April 1, has been given by the International Textile Committee in Tokyo. General MacArthur specified 200,000 tons as Japan's requirements for internal consumption and reported 140,000 tons as the estimated additional capacity that Japanese mills could process for export to meet the world textile shortage.

Fred Taylor of Washington, senior American committee member, said that the 200,000-ton program for Japanese domestic use already has the approval of Washington, and that it contemplates the importing to Japan of 34 per cent of that amount during April, May and June. Other American members of the committee include H. Wickliffe Rose, American Viscose Corp.; Frank Rowe, Riverside & Dan River Cotton Mills; Harry Bailey, former chairman of the board of Wellington Sears Co.; Stanley Nehmer. The English member is Frank Winterbottom and the Indian representative is Bharat Ram.

Another party, the Textile Operating Group, also has gone to Japan, where it will comprise the textile policy section of the export-import branch of the Economic and Scientific Division of General MacArthur's headquarters. In the group are Lee Fleming, James G. Torrens, deputy chief of the textile branch of Civilian Production Administration, and Hiram Nones, deputy chief of the cotton section of the Bureau of Foreign and Domestic Commerce.

Solvents Seen As Menace To Health

Organic solvents, which are among the most widely used industrial chemicals, can be dangerous to health unless workmen are protected from inhalation of the solvent vapors and prolonged skin contact with the liquids, it is reported by the Safety Institute, Inc. The control of these hazards, in addition to its humanitarian value, pays sizable dividends in dollars and cents, it announces further. Loss of solvent, it suggests, is avoided by controls which are designed primarily to protect health through minimizing the evaporation of volatile liquids. If it is necessary to use solvents in the open, specially designed work procedures and operating equipment will prevent vapors from escaping. The institute has suggested that an adequate solvent safety program, in addition to being an important factor in decreasing solvent loss, increasing efficiency, and improving labor relations, diminishes compensation payments and helps cut the cost of compensation insurance. Plant records indicating that workroom air has been analyzed regularly for solvent vapors and that solvent workers have received periodic medical check-ups may prove to be useful weapons against ill-advised demands for compensation for occupational injuries.

U. S. Rubber Ups Textile Requirements

United States Rubber Co. reported last month that it will require 20 per cent more textiles during 1946 than in the average pre-war year in order to carry out a greatly expanded production program in tires and other rubber products. The major portion of the textiles will go into tire cord. More rayon will be used than in pre-war years but

also required will be increased quantities of high-quality cotton for tire cord, Lastex yarn, footwear, rainwear, belting, hose, wire insulation and many other products.

Through laboratory research, United States Rubber Co. is striving constantly to improve the quality of textiles. One of the most important advances in this direction is Ustex, a cotton yarn treated with chemicals to give it as much as 70 per cent more tensile strength than untreated cotton. During the war this yarn was used principally in parachute webbing. As a peacetime product, it will be used in such applications as sewing thread, belting and hose. Another wartime product with promising post-war possibilities is Asbeston, a fabric formerly used to make fire-fighting suits for the Army and Navy and now being made into burnproof ironing board covers. Research is being continued on this product.

The rubber company owns and operates seven of its own textile mills in New England and the South. The entire output of these mills, together with additional textiles purchased from other firms will be required during 1946 in the production of rubber products. Chief bottlenecks to production in the company's own mills are the shortage of manpower and difficulty in obtaining new equipment of modern design.

Ray Bell Re-elected By Merchants Group

At a recent meeting of the board of directors of the Association of Cotton Textile Merchants of New York, W. Ray Bell was re-elected president, George M. Miller of Turner Halsey Co. was named vice-president, R. Edgar Benson of Woodward, Baldwin & Co. was named treasurer, and John L. Severance was re-elected secretary.

Mr. Miller succeeds Saul F. Dribben of Cone Export & Commission Co., Inc., in the office of vice-president, and Mr. Benson succeeds Charles A. Sweet of Iselin-Jefferson Co., as treasurer. Mr. Dribben had served for six consecutive years and Mr. Sweet for seven, consenting to remain in office and guide association affairs throughout the war period. Mr. Bell expressed the gratitude and deep sense of obligation of both the board and the membership to the retiring officers for their long periods of service.

Mr. Dribben, Mr. Sweet and Mr. John C. Hughes of McCampbell & Co., Inc., were appointed to serve with the officers as an executive committee during the coming year. At the same meeting, Dunson Sales Co., 40 Worth Street, New York City, was elected to membership in the association.



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Textile Mill Supply Co. Expanding

Textile Mill Supply Co. of Charlotte has completed the first phase of an extensive expansion and modernization program with the construction of a group of private offices for the executives, and a general office for the clerical staff, on the first floor of its building at 1300-10 Mint Street. The entire second floor on which some of the offices were for-



View of the new general offices of Textile Mill Supply Co. at Charlotte.

merly situated is thus made available for increased inventories of the large and varied line of mill supplies which the company carries.

The new offices have tiled floors, are equipped with fluorescent overhead lamps, and are air conditioned. Further plans include an extension of the present building at the rear to occupy a lot 100 feet in depth, which the company now owns. It was pointed out that completion of the expansion program will insure greatly improved facilities for serving the mills in this section.

Included among the well known manufacturers for which Textile Mill Supply Co. acts as distributor are: Brown &



Display counter on first floor; executive offices are shown at left.

Sharpe Mfg. Co., Goodyear Tire & Rubber Co., Inc., Graton & Knight Co., Yale & Towne Mfg. Co., Worthington Pump & Machinery Corp., SKF Industries, Inc., Republic Steel Corp., Keystone Lubricating Co., Jenkins Bros., Simonds

Abrasive Co., Manning, Maxwell & Moore, Inc., American Pulley Co., Hendy Machine Co., Minnesota Mining & Mfg. Co., H & P Spool & Bobbin Co. (small bobbins and fibre head spools), Terrell Machine Co. (card room bobbins and wood spools), Barber Mfg. Co. (spinning tape), Fields Mfg. Co. (slasher and clearer cloths).

Officers of the company are: J. H. Bobbitt, who succeeded the late Fred Glover as president; R. S. Bigham, vice-president; F. A. Hipp, vice-president; A. K. Glover, secretary; E. G. Glover, treasurer.

Laborism vs. Americanism

(Continued from Page 29) with the fate of the workers under Nazism and Fascism, but it is a little known fact that the fate of the workers in the original communist state is just about as bad if not worse. It is a known fact that the average size of the Russian working man has decreased in the past 20 years under Communism simply through a deficiency in the proper things to eat. The luxuries and even comforts in food and clothing in Russia today are restricted to the leaders of the Communist Party, while the more than 180,000,000 peoples of the Russian nation have neither enough food nor clothing—and least of all have they any rights to say or do anything about it.

Our American laboring men who are union members are realizing all these things today. And more, they are realizing that labor, as it has developed in the last few years cannot and does not offer the working man the real advantages of self development and improvement that does free enterprise, industry and the original American ideal of an organization and government for the people as well as of the people. American laboring men know that labor as it is today cannot and does not reward real brains and merit as richly as did industry and free enterprise reward the efforts of former poor laboring men like Henry Ford, Walter Chrysler and a host of others. America cannot continue to be the land that it has under the free enterprise of the past if it continues to follow the trends of the American labor movements of today.

But the American laboring man of today who is a member of most of our labor unions is even now hooked and he cannot help himself. Let a member of a union assert himself and his job and his right to earn a living for his family will be lopped off as quickly as the head of an independent thinker under the "isms" of Europe.

The people really need help from their own unions that have suppressed any semblance of democracy or equal representation from among their memberships. And they are rapidly trying to suppress it from the entire land. The only thing that can help the people help themselves is for the Federal Government to pass adequate legislation curbing the authority and controlling the activities of labor unions and any and all pressure groups.

Will our government find a man with the intestinal fortitude and the gumption to lead in the fight to muzzle all pressure groups that would destroy the rights of each and every individual man? The writer believes that such a man would not only not lose the vote of the people, whether they be members of a labor union or not, but that he would gain the vote and the gratitude of a vast majority of grateful Americans who would place his in the presidency of a land which is once again a nation, of, by and for its people.

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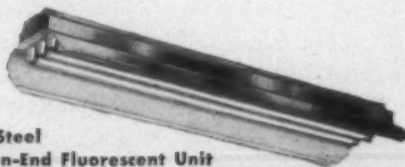
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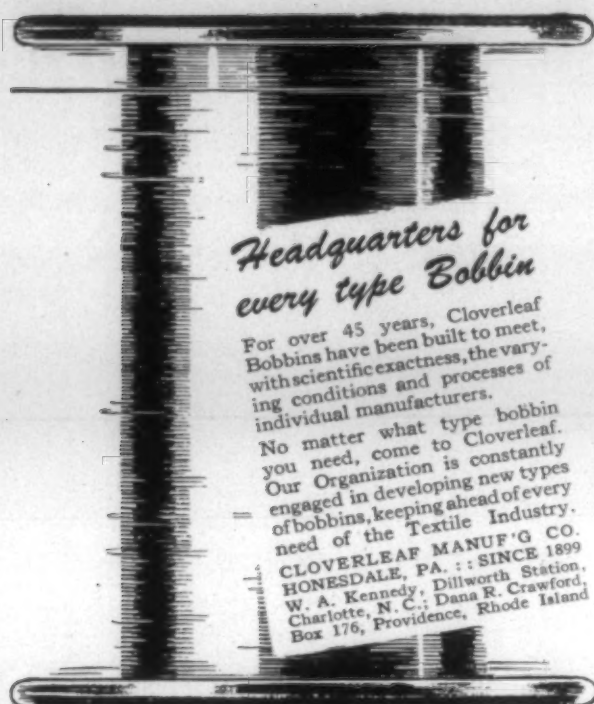
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Available for two or three 40-watt, or two 100-watt lamps. Broad wiring channel with accessible, enclosed ballast. Can be mounted from chain or conduit, individually or in continuous runs.

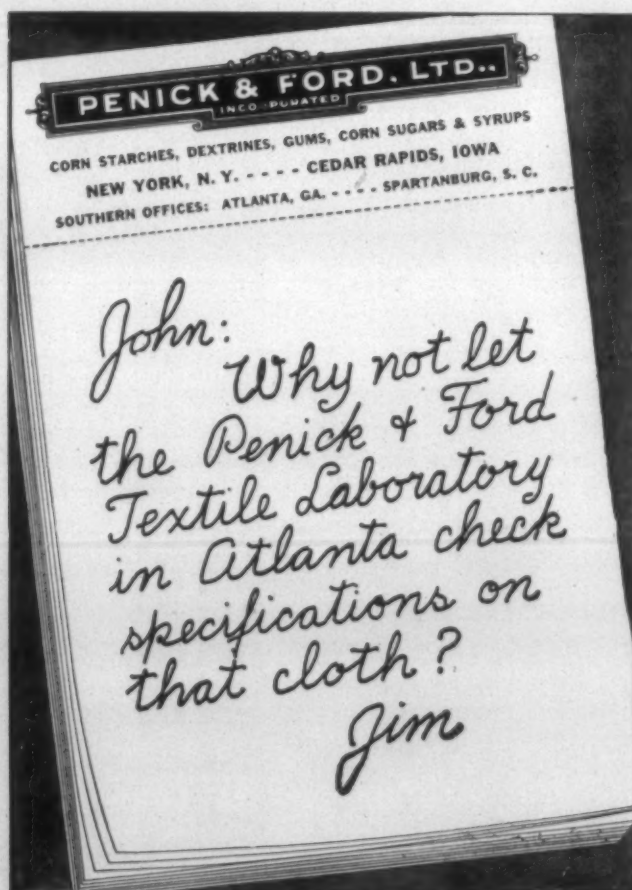
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CLOVERLEAF Bobbins



The Market for China Brocades

(Continued from Page 34) goods with 80 to 96 ends per inch and eight shaft satin weaves are used for the higher sley and pick material.

With this slight adjustment in our yarns and our methods of designing, I cannot see why we in the United States could not compete successfully with the rest of the world for the Chinese market for China brocades.

The last time the writer designed any of these fabrics was 35 years ago. However, I believe the foregoing information to be correct. Should the face five shaft filling satin be a warp satin weave instead of a five shaft filling satin weave, the twist of the filling and the warp yarns would be the reverse. For instance, the yarn for the filling would have a right-hand twist and the warp yarn a left-hand twist.

I have written to determine whether it is possible to obtain a few samples of the China brocade. Should I be able to secure these samples, I would gladly pass on all information to any interested party. It is customary for the manufacturer to secure a sample of the cloth required which must be followed very closely for the twist of yarns, the satin weaves and the direction of the weaves. Should there be any Chinese writing on the sketch ordered, care must be taken that the writing show up on the face.

Chinese-American Plan Mutually Beneficial

Approval of a \$33,000,000 credit to China for the purchase of raw cotton in the United States has been approved by the Export-Import Bank of Washington, while Premier T. V. Soong has announced that China plans to acquire Japan's former world textile markets, a business estimated as high as \$300,000,000 annually. In this connection the government-sponsored Textile Development Co. has been established to organize silk and cotton production for vast export expansion in China. The Chinese are taking over Japanese cotton mills and are demanding 5,000,000 mulberry trees from Japan as the first step in revival of their silk industry.

America's textile shortage can be relieved by putting German and Japanese mills to work with American raw cotton, according to United States government authorities. Under an international production program, the United States will furnish the cotton and German and Japanese spindles will put it into cloth. This eventually will help to relieve the present American shortage in shirts, shorts, sheets and other cotton products.

Celanese and Tubize Agree On Merger

Stockholders of Tubize Rayon Corp., at a special meeting Feb. 6 in New York City, approved the proposed merger with and into Celanese Corp. of America. A special meeting of Celanese stockholders was held the following day, at which time full Celanese approval of the merger was given. Directors of the two corporations, in November, 1945, signed an agreement of merger.

Under terms of the merger each outstanding share of $4\frac{3}{4}$ per cent preferred stock of Tubize Rayon Corp. will be converted into one share of first preferred stock, \$4.75 series of Celanese Corp. of America. Each outstanding

share of common stock of Tubize Rayon Corp. will be converted into 2/3 of a share of common stock of Celanese Corp. of America. No change is proposed in the terms of the outstanding first preferred stock, \$4.75 series; seven per cent second preferred stock or the common stock of Celanese Corp. of America and no exchange of stock certificates of these issues will be necessary.

Consolidation of these two producers of synthetic yarn will result in total assets of \$150,000,000. As of Sept. 30, 1945, the balance sheet of Celanese Corp. of America showed total assets of \$127,186,307 and that of Tubize showed total assets of \$23,703,796.

Exposition of Chemical Industries Is Scheduled

The 20th Exposition of Chemical Industries, comprising the production of chemicals, the entire range of chemical processing and the use of chemicals in connection with mechanical processes, will be held Feb. 25 through March 2 at Grand Central Palace, New York City. The Exposition of Chemical Industries is a permanent organization whose purpose is to promote the relationships between research, industrial organization and the media of production, through visualization, demonstration and personal consultation. The organization obtains its objectives by sponsoring exhibitions every two years. Exhibitors' list for this year's event includes more than 375 names. The exposition is under the management of International Exposition Co., of which Charles F. Roth is president. Mr. Roth also will serve as manager of the exposition. E. K. Stevens is associate manager.

A.S.T.M. Spring Meeting Program Announced

Two technical features of the spring meeting of the American Society for Testing Materials, to be held at Hotel William Penn, Pittsburgh, Pa., Feb. 26-27, will be the presentation of several papers on statistical quality control and its relation to specifications and the symposium on atmospheric exposure tests of non-ferrous metals and alloys. The quality control session will include a paper by Joseph Manuele, director of quality control, Westinghouse Electric Corp.

The annual meeting of A.S.T.M. will be held at Hotel Statler, Buffalo, N. Y., during the week of June 24. Simultaneous with the annual meeting, the seventh A.S.T.M. exhibit of testing apparatus and related equipment and the annual photographic exhibit will be held.

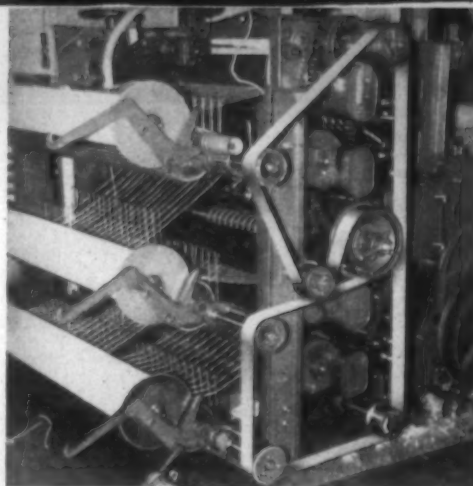
French Textile Group To Visit U. S.

An independent group of young French employers, Centre Jeunes Patrons, organized to aid in the rehabilitation of French industry, has formed several visits to the United States for groups of its members. Organized in 1938 with 500 members, the group includes many more today, with branches in 56 cities of France. Jean Delemere of a Lille cotton spinning enterprise is president of the group.

The delegation representing France's textile industry will leave for America March 1, headed by M. Delemere. The tour, which will take four weeks, will be entirely by airplane. The party will visit American Woolen Co.'s plants before inspecting Southeastern mills.

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Organized Research Program Is Instituted

A nation-wide plan to foster industrial research in American technical schools and colleges has been introduced by Research For Industry, Inc., of Ohio, according to Dr. Waldemer Dietz, executive director of the Cleveland organization. Designed to correlate the research needs of small industries into an organized program of supervised scientific investigation, Research For Industry proposes to utilize the established staffs and facilities extant in the universities throughout the country. In recognizing the necessity to conduct continuing studies of new products, processes and procedures, the plan proposes to present an individualized research program, the projects of which will be endowed to technical schools or laboratories best qualified to handle the assignments.

As explained by Dr. Dietz, the war fully demonstrated the ability of industry and the academic field to co-operate on a common problem. This same spirit can be exercised in post-war research development through proper direction and liaison.

In operation, the R.F.I. plan serves a twofold purpose. It offers the smaller manufacturer organized and supervised economical research, and affords technical schools the opportunity to expand their staffs and facilities because of wider use of their services. A mounting flow of new research talent into the industrial field is seen in this movement. Industry's reliance upon scientific knowledge and personnel sponsors a trend toward increasing the number of trained technicians while more closely relating industrial research problems with the theories of pure science.

Report On German Felt Industry Made

A report on the investigation of the German compressed felt industry which he made in Germany recently was given by Raymond R. Stevens, director of research of the Felters Co., Millbury, Mass., at the annual meeting of the Felt Association last month in New York City. Mr. Stevens' report was delivered at the invitation of Dr. William D. Appel, chief of the textile section, Bureau of Standards, United States Department of Commerce.

L. H. Hansel of Felters Co. at Boston, Mass., was re-elected president; J. T. Lawless of American Felt Co. at Glenville, Conn., was named vice-president; and W. J. Parker of New York City was appointed secretary-treasurer. Directors include C. A. Hubner, A. N. Sudduth, Herman Berglund, Mr. Hansel and Mr. Lawless.

Los Angeles Plans Textile Exhibition

A textile exposition, designed to introduce future fabrics in the world's buying organizations, will be held in Los Angeles beginning Aug. 24, at the Pan Pacific Auditorium. Believing that industry and the public await an opportunity to view war-time developments in textiles, a non-profit corporation, headed by A. J. Gock, chairman of the board, Bank of America, has been formed to present the exposition in this city. The corporation, known as Fabric Futures, Inc., is under the sponsorship of the Textile Association of Los Angeles.

Planned for a two-week period, the exposition will display improvements in utility, color design, the manufacture and processing of yarns and fabrics and new synthetics

made from milk, glass, oil, metals, coal, plastics, rayon, wool and cotton, along with the infinite variety of forms and finishes in wool, linen and silk. Participation in the exposition will be confined to the textile industry and its by-products. Exhibits will be animated to show how yarn is woven, processed, dyed and printed and produced as the finished products.

"This exposition will attract not only the leading buyers and manufacturers of the nation, but it will be of great interest and educational value to our entire population," said Mr. Gock. "The manufacture of apparel has become one of our area's leading industries and contributes substantially to our overall economy. The very nature of the exposition permits the inclusion of dramatic entertainment features which will visualize the uses of the products made from textiles," Gock also stated.

New System for Fire Insurance Data

One of the most significant and progressive advances in the history of fire insurance in this country has just been undertaken by capital stock fire insurance companies. After many months of study of the basic information on which the fire insurance business operates, a new system has been developed which will provide fire insurance experience data throughout the nation on a broader, more uniform, more adequate and more accurate basis.

Under the new, broader system the statistics in respect to premiums and losses will be kept separately in two classes in the raw and finished textile business, as follows: (a) Cotton Gins, including auxiliary buildings; and (b) Cotton and Woolen mills, textile knitting and weaving mills, thread and yarn manufacturing bleacheries, dye and print works, embroidery and felt mills, carpet factories, rope, cordage and twine factories. In the non-manufacturing field, statistics on cotton warehouses, including compresses and cotton yards, also will be kept in one class.

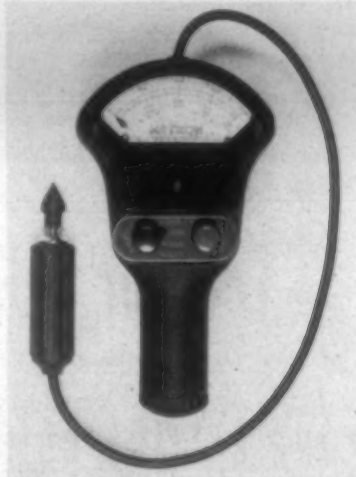
The importance of the new system to the textile industry is that it will afford an improved statistical foundation for the business judgments of companies in insuring against fire hazards, for the action of state authorities in regulating fire insurance, and for general purposes. The announcement was made by W. E. Mallalieu, general manager of the National Board of Fire Underwriters.

Federal Aid Sought for Textile Fellowships

Legislation which would establish with Federal funds graduate fellowships at textile and engineering schools for the development of projects in cotton research is being considered by the Pace Committee of the House of Representatives. Cotton chemists and physicists, who met in Washington recently under auspices of the National Cotton Council, reported a dearth of young scientists in their fields and urged the necessity of expanding facilities and program in cotton research in technical schools. Reed Dunn, Washington representative of the council, reported that the cotton scientists have expressed full agreement with the Department of Agriculture's plan for a co-ordinated cotton research program provided that program was run on a basis similar to the War Department's research programs during the war. In these, Army officers worked closely with scientists in private research institutions but did not attempt to dictate methods of work.

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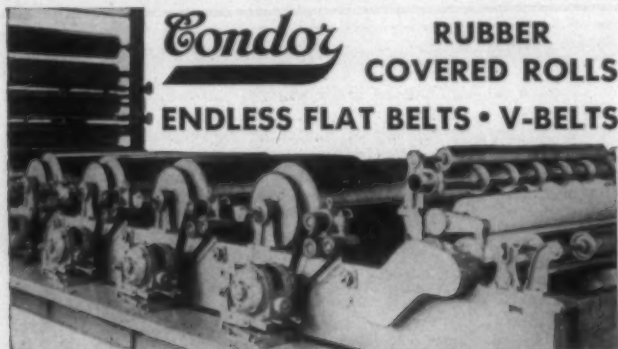
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Glass Cloth Made Debut In Wartime

While the Navy recently revealed that plastic body armor made of laminated glass cloth was ready for combat use by Navy and Marine assault troops shortly before the war's end, fine glass fibers used to reinforce plastics were widely used during the war in military aircraft. Many peacetime applications of the material have been forecast.

Experiments have shown the war-developed armor to be effective against bullets and fragments and, while glass cloth clothing was not put to extensive use during the war, the Navy reported, laminated nylon flak suits were adopted by Navy and Marine airmen for protection from heavy anti-aircraft fire over Japan.

Private experiments with glass-reinforced plastic materials have revealed that it does not corrode, is dimensionally stable and can be fabricated without costly dies, according to H. W. Collins of Owens-Corning Fiberglass Corp., speaking at a recent meeting of the American Institute of Chemical Engineers. Strength properties attainable with glass-reinforced plastics are, he said, 7,600 pounds of tension per square inch; compression, 68,000 pounds per square inch; and flexure, 112,000 pounds per square inch.

New Cotton Tire Cord Is Developed

A new cotton tire cord, hailed as being 132 per cent better than standard cotton cord, is reported by Dr. E. A. Gastrock, acting director of the Southern Regional Research Laboratory, New Orleans, La., to have been developed. The cord, he said, was produced with Wilds 13 cotton. Tires of low-gauge cord of Wilds 13 cotton proved 132 per cent better, tires of SXP cotton 75 per cent better and tires of Stoneville cotton 20 per cent better than the standard cotton cord, tests indicated. Other developments attributed to the laboratory included a rot proofing process for cotton goods, a flameproofing process for cotton fabrics and an acid-resistant cotton thread.

Safety Conferences Scheduled for Spring

The seventh annual Southern Safety Conference and Exposition will be held March 3-5 at Robert E. Lee Hotel, Winston-Salem, N. C. Besides general sessions, there will be special sessions of the commercial vehicle section, traffic section, school and child section, farm and home section and public safety section. Among conference speakers will be Ned H. Dearborn, president of the National Safety Council; Thurman Sensing, representing the Southern States Industrial Council; and Dr. Frank P. Graham, president of the University of North Carolina. Requests for hotel accommodations should be addressed to Arthur Corpening, chairman of hotels committee, Hotel Robert E. Lee, Winston-Salem.

The 16th annual State-wide Industrial Safety Conference for North Carolina will be held May 30-31 at Hotel Charlotte, Charlotte, N. C. Methods for preventing accidents in reconverting industry will be discussed at these sessions.

Cotton Events for Early 1946 Calendered

A calendar of events in the "land of cotton" opened Feb. 9, when Gwin Barnwell of Gastonia, N. C., as Maid of Cotton, began her nation-wide tour as fashion ambassador of the cotton industry in Miami, Fla. As representative of

the industry, the Cotton Maid is appearing as featured model in all-cotton fashion shows and visiting Army and Navy camps and hospitals. Her tour will be approximately four months in duration. She will be honored at the Memphis (Tenn.) Cotton Carnival May 13-18. Sponsors of her tour are the National Cotton Council, the Memphis Cotton Carnival and the cotton exchanges of Memphis, New Orleans and New York.

Cotton Week this year is scheduled for May 20-25. "Cotton Is Back" has been chosen as the slogan for the celebration, which will be marked by merchandise exhibits, cotton carnivals and community programs in many cotton-growing and textile centers of the South. While no attempt will be made this year to start a run on supplies of retail cotton goods, emphasis will be placed on the fact that many mills have overcome most reconversion difficulties and are bending their efforts on correcting the supply status.

The seventh annual World Cotton Congress will be held July 7-8 in a Texas city, according to announcement by Burris Jackson of Hillsboro, Tex., chairman of the Texas Statewide Cotton Committee. Selection of a host city will be made in March, with the probability that Dallas will be named.

Saco-Lowell Shops Report 1945 Loss

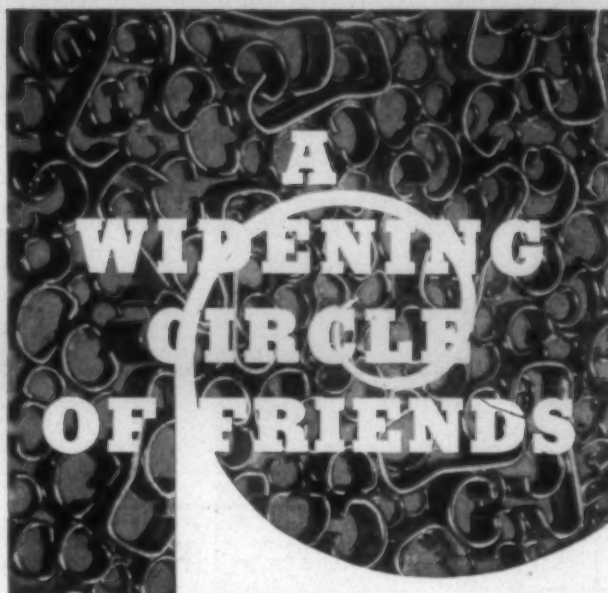
The fiscal year ending Nov. 30, 1945, a period of reconversion for Saco-Lowell Shops, resulted in a loss of \$1,318,162, according to the annual report to stockholders. Accounting for the loss, the report attributed the loss to "dislocating and costly plant rearrangement; heavy necessary expenditures for deferred maintenance; crippling shortages of manpower and materials . . . and increased costs of production." The operating loss has been offset by a transfer of an equal amount from the reserve for contingencies. The company plans to file a claim for refund of Federal income and excess profits taxes, based upon the carry-back provisions of the internal revenue code, in an amount approximating \$1,400,000.

Dollar volume of textile machinery products turned out in 1945 was in excess of that for the year 1940, in which year the company showed a profit before Federal taxes of over \$1,100,000. "This comparison," states David F. Edwards, president of the company, "emphasizes the extent to which the abnormal operating conditions of the past year, particularly the greatly increased costs and the fixed price ceilings, have affected the company's earnings."

Georgia Association Meets May 2-3

The first post-war convention of the Cotton Manufacturers Association of Georgia will be held at the General Oglethorpe Hotel, Savannah, May 2-3. Reservations should be addressed to T. M. Forbes, executive vice-president of the association, Room 740, Citizens and Southern Bank Bldg., Atlanta, Ga.

The Cotton-Textile Institute is distributing to its members the second of a series of studies on cotton textile costs. The booklet contains an up-to-date survey of the methods being used by mills to determine raw material and waste costs. Additional studies covering labor costs and other phases of cotton textile manufacture will be issued in the near future.



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Cotton Goods Market

Cotton textile mills throughout the country want nearly 40,000 additional workers to reduce huge backlogs of orders for civilian goods, according to Robert C. Goodwin, director of the United States Employment Service. He based his statement on figures obtained from 244 plants, representing more than half of the industry.

Despite the large number of returning veterans with textile mill experience, only 15,000 additional production workers have been added to the industry's pay roll since the close of the war, Mr. Goodwin said. Employment of production workers in the textile industry in December was 422,000, a 25 per cent reduction from the December, 1942 peak of 510,300 loss of men to Selective Service and to war industries caused this drop, according to Bureau of Labor Statistics figures.

The trend toward vertical integration, states the Civilian Production Administration, has brought about a great change in the mechanism of distribution of cotton fabrics. This has worked to the particular disadvantage of small scale consumers of fabrics. This trend has increased the difficulties being experienced by some of the important industrial consumers and has had the further effect of delaying deliveries and lengthening cloth pipelines by many weeks. C.P.A. is now studying methods by which the flow of industrial fabrics can be assured for the production of basic industrial end products. Also, to facilitate the granting of special priority assistance for the procurement of textile yarn and fabrics, C.P.A. is preparing an amendment to PR-28 which will set down the criteria under which C.C. ratings may be granted in order to (1) break industrial bottlenecks, (2) assure the continued manufacture of products which are essential to the continuance of other basic industries, and (3) maintain the operation of existing small businesses at the minimum economic level.

Some of New York City's Worth Street firms are continuing with no selling plans for the second quarter and are informing customers that aside from accommodation sales, which are reported to involve only insignificant yardages, the present market impasse will go on just as long as the Office of Price Administration withholds a price increase on gray goods, according to reports.

As long as the price agency expects mills to turn out goods under present ceilings in the face of rising cottons costs and increased wages for employees, then just as long will the gray goods market continue its present policy of marking time, it is indicated. However, there is a feeling of considerable optimism in some market circles that Congressional pressure on O.P.A. will bring forth some action on this matter before too long a time has elapsed.

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Cotton Yarns Market

A belief held by several cotton yarn distributors is that accounts of long standing are currently receiving deliveries of yarn which closely approach the quantities obtained in pre-war days. These trade sources agree that while this condition cannot be applied to the market as a whole, the majority of yarn buyers securing regular allotments are being shipped amounts equal to pre-war totals or a volume that is reasonably close.

It is stressed that this observation does not suggest that customers are getting yarn in the amounts they actually need. Spokesmen indicate that because of expanded business and new manufacturing lines, yarn users are still unable to acquire sufficient shipments of sale yarn.

Purchasers' needs are recognized, dealers say, and yarn handlers are desperately striving to fill present requirements which the trade is aware have soared above those of 1939. Ordinarily, these market sources believe old-line customers are picking up "substantial quantities" of yarn.

The worker shortage will hog-tie sale yarn production, even "if and when" spinners find themselves capable of absorbing the expense of three-shift production, some quarters in Philadelphia maintain.

Numerous statements have been made by yarn handlers who believe that general three-shift operations by the industry will sharply reduce the enormous demand for yarn. Spinners, of course, have frequently stated that, under present price levels, they cannot meet the premium requirements for extra shift operations.

Now many in the trade make the observation that there is not sufficient manpower available for over-all, three-shift production. One leading factor says the yarn mills will have to increase overtime on regular shifts, not attempt to assemble skeleton working forces for round-the-clock operation. All these discussions on increasing production, it is pointed out, are based on the assumption that prices will be altered to allow for increased wage demands.

Spinner representatives reveal that the back-to-work trend continues slow in Southern spinning establishments. Former war workers and veterans are returning, but not en masse. One source in Philadelphia noted that many mill employees in the South have not yet cashed in their war bond holdings. "Until they scrape the bond barrel's bottom," he said, "the incentive to stick to the job will be lacking."

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1945 Rayon Output At Record Level

Domestic production of rayon totalled 792,100,000 pounds in 1945, exceeding the 1944 output of 723,900,000 pounds by ten per cent, states *Rayon Organon*, published by the Textile Economics Bureau.

Viscose-cuprammonium rayon yarn production in 1945 at 448,800,000 pounds represented an increase of 17 per cent over the previous year, while acetate rayon yarn output last year at 174,900,000 pounds showed an increase of two per cent over 1944. Rayon staple fiber production in 1945 amounted to 168,400,000 pounds, a slight decline from the 1944 level. Viscose staple fiber accounted for 75 per cent of the total output, the remaining 25 per cent being acetate staple fiber production.

The principal increase in 1945 rayon production, states the *Organon*, took place in viscose filament yarn and was due to the greatly expanded output of high tenacity yarn, the great bulk of which is used to make tire cord and fabric.

An analysis of the rated vs. the "free" uses of rayon yarn during the war and pre-war periods reveals the great expansion of the rated high tenacity viscose yarn shipments, mainly for the tire cord program. For example, 195 million pounds of rated high tenacity viscose yarn were shipped by producers during 1945 compared with a 1941 pre-war level of 18 million pounds. This large tire cord program, states the publication, had a comparatively small effect on the total shipments of regular and intermediate tenacity viscose yarn, these viscose-cupra non-tire shipments being at a peak of 281 million pounds in 1943 and declining by only ten per cent to a low of 252 million pounds in 1945; but the rated uses of regular and intermediate yarns amounted to as high as 33 per cent during the war, which considerably reduced the amount of "free" yarn available for non-rated purposes.

The 1945 pattern of rayon yarn distribution by principal consuming trades showed the effects of wartime operations and reconversion. As compared with 1944, the 1945 distribution of total rayon yarn shipments to domestic trades showed the following changes: shipments to full-fashioned hosiery —25 per cent, seamless hosiery —13 per cent, circular knitting —2 per cent, warp knitting +7 per cent, broad woven +1½ per cent, narrow woven +12 per cent, miscellaneous uses —22 per cent, and shipments to tire manufacturers +62 per cent.

The publication also points out that, on the basis of a preliminary estimate, 1945 world rayon yarn and staple fiber production totalled 1,700,000,000 pounds. Thus the United States produced approximately 60 per cent of the world's output of rayon filament yarn and 25 per cent of the rayon staple fiber during 1945.

United States rayon production in 1945, which totaled nearly 800,000,000 pounds, was more than double the pre-war output of 380,000,000 pounds in 1939, according to William C. Appleton, president of American Viscose Corp. This expansion cannot be classed entirely as a war phenomenon, but was rather a continuation of the uninterrupted growth which the industry has experienced since it was founded in this country in 1941. This growth has been paralleled by a steady improvement in quality and lowering in price, states Mr. Appleton. The significance of the wartime expansion in rayon, he says, was that it occurred chiefly in new and improved, stronger and finer types of rayon, including the high-strength rayon yarns designed

for use in tire cords and fabric. The expansion did not represent merely an increase of so many pounds of rayon that will crowd the markets previously established for the fiber. Despite the wartime increase in output, the demand for rayon is still considerably greater than the supply, according to Mr. Appleton. From present indications, it seems probable that production could again double during the next ten years and reach an annual output of about 1,500,000,000 pounds by 1955, provided present high construction and manufacturing costs can be reduced.

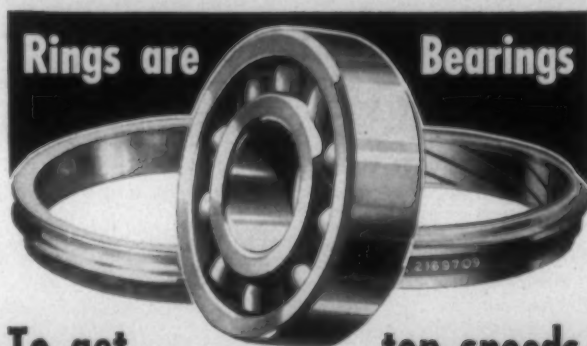
War Department Cites Technical Experts

War Department certificates of appreciation have been awarded 17 leading technical experts who served as consultants with the Chemical Warfare Service and members of an industrial intelligence team in surveying German chemical plants manufacturing military chemicals. Certificates were presented to the following by Maj.-Gen. Alden H. Waitt, chief of Chemical Warfare Service: William S. Calcott, E. I. du Pont de Nemours & Co., Inc., Wilmington, Del.; Francis J. Curtis, vice-president in charge of research, Monsanto Chemical Co., St. Louis; Gaston F. Dubois, formerly vice-president of Monsanto Chemical Co.; Mayor F. Fogler, vice-president of Solvay Process Co., New York, N. Y.; John M. Harris, Jr., Allied Chemical & Dye Corp., Philadelphia, Pa.; Pohn W. Haught, E. I. du Pont de Nemours & Co., Inc., Arlington, N. J.; Wilhelm Hirschkind, Dow Chemical Co., Pittsburg, Cal.; Jean G. Kern, Allied Chemical & Dye Corp., Buffalo, N. Y.; Ford R. Lowdermilk, Allied Chemical & Dye Corp., Philadelphia, Pa.; R. Lindley Murray, vice-president in charge of research and development, Hooker Electrochemical Co., Niagara Falls, N. Y.; Karl T. Nilsson, Solvay Process Co., Syracuse, N. Y.; Roy W. Sudhoff, Monsanto Chemical Co., Dayton, Ohio.; Ernest H. Volwiler, vice-president in charge of research, Abbott Laboratories, North Chicago, Ill.; Lester M. White, director of research, electrochemicals department, E. I. du Pont de Nemours & Co., Inc., Niagara Falls, N. Y.; Lawrence C. Turnock, consulting engineer, Union Commerce Building, Cleveland, Ohio; Percy J. Leaper, Allied Chemical & Dye Corp., Philadelphia, Pa., and Guy B. Panero, Todd & Brown, Inc., New York City.

A.C.M.A. To Bid for Starch Supplies

A bid for a portion or all of approximately 783,564 pounds of corn starch offered for sale by the U. S. Department of Agriculture will be submitted by the American Cotton Manufacturers Association in behalf of its member mills. The association has agreed to take this action due to the fact that bids of individual manufacturers for starch, in the face of priorities and preferences, would not prove as successful as would a collective bid. Strike conditions prevailing at Corn Products Refining Co. and other corn grinders and the acute shortage of corn have undermined starch supplies at many mills.

A questionnaire on carding and spinning will comprise the program at a meeting of the Textile Operating Executives of Georgia March 16 in the physics building at Georgia Tech, Atlanta. The questionnaire has been circulated among the members with the request that answers be returned to Robert W. Philip, secretary-treasurer.



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ACME STEEL CO., 2838 Archer Ave., Chicago, Ill. Sou. Office and warehouse, 633 Stewart Ave., S. W., Atlanta, Ga.; F. H. Webb, Dist. Mgr. Sou. Sales Reps.: C. A. Carroll, 823 Clairmont Ave., Decatur, Ga.; Phone Dearborn 6267; Marcus M. Brown, 1231 Lexington Ave. (Phone 8583), Charlotte, N. C.; William G. Polley, 937 Cherokee Lane, Signal Mountain, Tenn.; Phone Chattanooga 8-2635; John C. Brill, 309 Magazine St., New Orleans, La.; Phone Magnolia 5859. Warehouses at Atlanta, Ga.; Greenville, S. C.; New Orleans, La.

AKRON BELTING CO., THE, Akron, O. Sou. Reps.: Ralph Gossett and Wm. J. Moore, 15 Augusta St., Greenville, S. C.; The Akron Belting Co., 406 S. 2nd St., Memphis, Tenn.; Oliver D. Landis, N. C. Agent, 718 Queens Rd., Charlotte 4, N. C.

ALLEN CO., THE, 440 River Road, New Bedford, Mass. Sou. Rep.: L. E. Wooten, Fort Mill, S. C.

AMERICAN CYANAMID & CHEMICAL CORP., 30 Rockefeller Plaza, New York City, Sou. Office and Warehouse, Wilkinson Blvd., Charlotte, N. C.; Hugh Puckett, Sou. Sales Mgr. Reps.: John D. Hunter, E. H. Driver, Paul F. Hadcock, Charlotte Office; E. J. Adams, 1404 S. 22nd St., Birmingham, Ala.; Jack B. Button, 610 N. Mendenhall St., Greensboro, N. C.; O. B. Suttle, Jr., 423 Clairmont Ave., Decatur, Ga.; K. E. Youngchild, 10 South St., Mobile, Ala. **AMERICAN CYANAMID CO.**, Textile Resin Dept., Bound Brook, N. J. Sou. Reps.: J. E. Moore, Mgr., Walter Knoepfel, Rep.; 3333 Wilkinson Blvd., Charlotte, N. C.

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AMERICAN PAPER TUBE CO., Woonsocket, R. I. Sou. Office: 513 South Tryon St., Charlotte, N. C.; Jesse Hodges, Sou. Rep.

AMERICAN VISCOSE CO., 350 Fifth Ave., New York City. Sou. Office, Johnston Bldg., Charlotte, N. C.; Harry L. Dalton, Mgr.

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ARMSTRONG CORK CO., Industrial Div., Textile Products Section, Lancaster, Pa. Sou. Office, 33 Norwood Place, Greenville, S. C.; J. V. Ashley, Sou. Dist. Mgr.

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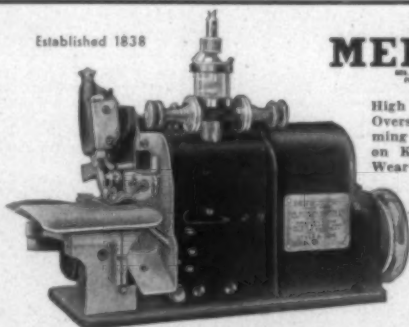
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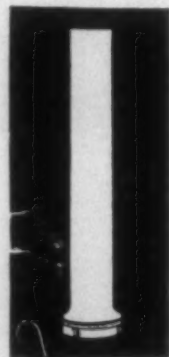
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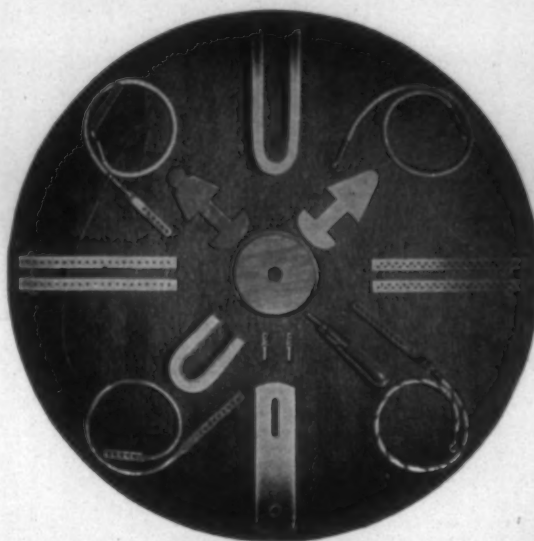
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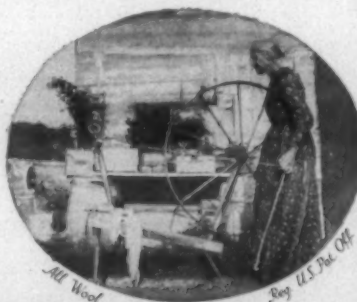
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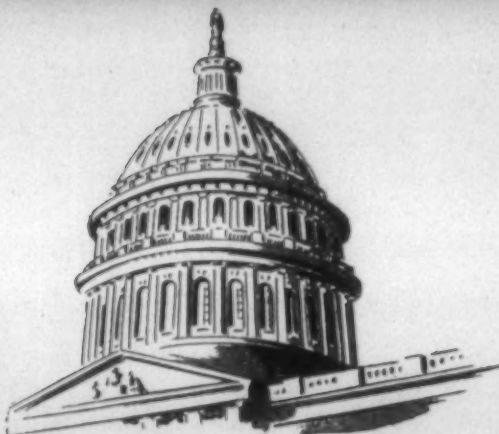
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[Exclusive and Timely News from the Nation's Capital]



THE NEW PRICE-WAGE FORMULA is a compromise, arrived at with the warring factions of the official presidential family. It attempts strict price control, with a crack here and there, and governmental scrutiny of wage increases. Basically, it's an application of fact-finding, intended to eliminate gross inequities in related industries, living standards and wage disparities. It will tend to streamline wage increase demands, and now and then lead to price ceiling adjustment. It falls short of strike settlement machinery, and leaves prevention of threatened strikes to trial and error mechanics.

Appointment of Bowles as reconversion director, and Collett to O.P.A., implies no break in the basic Truman reconversion policy. Porter is a close friend of Bowles, and loyally supported him in the bitter week-long discussion across the President's conference table. The C.I.O. contingent gained a substantial victory in the upping of Bowles and shifting of Porter. The astute hand of Politician Hannegan is credited with Bowles' success in the President's final decision.

The new formula baffles those in and out of government who have hoped for a well-rounded, effective labor policy. It leaves room for wage increase adjustments to be subject to the political pressure of unions, and provides no effective means for making wage contracts fully binding. The formula may last for only a short time.

Basically, the whole problem arises in the Administration's mistaken belief that war order cancellations would lead to vast unemployment, with bread lines in the offing. Rigid price ceilings were deemed necessary, with removal of all wage controls also necessary. No account was taken of the explosive force of vast market shortages in goods, and vast sums of war earnings, bonds and savings in workers' pockets, which developed into workers going to the Gulf coast and Florida on the greatest mass spending spree in history.

Secretary Ickes went out on his ear after opposing Pauley's confirmation as Navy under-secretary because the President had no time, amid the bickering over a wage-price policy, to adjust another squabble in his official family.

The President is angling for peace with the potent Southern contingent in Congress, realizing that without its help his economic legislative program is stalled. In turn, the Southerners are suggesting he look into details, as well as over-all implications, of his proposals before sending them to Congress.

Favorable Senate action on the anti-racketeering bill is likely. Measure would prohibit extortion from or union membership forced upon operators of vehicles moving in interstate commerce. Farm organizations are pressing hard for enactment. Unions are resisting the bill with every stratagem at their disposal.

Question being most often asked: What's the matter with the Truman Administration, and what's the cause for its rapid deterioration? Part of the answer is Mr. Truman has been taking executive

action -- and sending bills to Congress -- merely on the say-so of his C.I.O. advisers without looking into the details or over-all principles of his action or the bills, or grasping the complications that might arise from them.

Again, the unions have sought government decisions imposing higher wages, and Mr. Truman has willingly lent himself to this scheme. Illustration is the dictation, ahead of fact-finding, of the minutely fractional 17.1 per cent increase for motor industry.

It is not clear yet that both branches of Congress will enact industrial disputes and strike legislation, for Congress is slow moving and this is election year. But bills are coming up, to which strong anti-strike and contractual responsibility amendments will be offered, and some will pass each house, and some may go to the President for his approval or veto.

The dilemma of Mr. Truman grows day by day, complicated by increasing pressures, loud denunciations and caustic criticism that C.I.O. factions hurl, singly and collectively, at Congress. Rebel-lious Southerners in both branches, joining with Republicans as they have often done, can pass or defeat any bill. Dyed-in-the-wool New Deal bloc has 117 of 435 House members.

The President has lost completely his leadership in Congress. The blunder stems from indecisions and hesitation in the face of strikes, and the hope that Congress and the public would force settlements, plus the attempt to pour a C.I.O. legislative program -- \$25 for 26 weeks idleness pay, F.E.P.C., the 65-75 cent minimum wage and 60 million made-jobs -- down the collective Congression throat. Year-end attempt to lash Congress into compliance via radio talk was last straw in fatal blundering.

As strike epidemic gathers force, government's mediation machinery creaks along with pathetic slowness, amid broken wage contracts, irresponsibility of union leaders, and growing bitterness between labor and management. Neither mediation officials, labor or management show confidence in fact-finding; it has not headed off a single strike.

Local offices of U.S.E.S. are experiencing their heaviest traffic in history, and flow is increasing. Calls for job placements in December aggregated 10.1 million, against 4.9 million in July, and January shows probably a 20 per cent increase over December.

Number of workers seeking jobless benefits in week of Jan. 5 hit a new post-war high, says the Social Security Board, with an increase of 217,000, pushing the total up to 1,858,000. Heaviest increases are in California, Ohio and New Jersey, with sizable percentage increases in the Carolinas, Georgia and Tennessee.

A single comprehensive system of social insurance, plus national health, will be urged by the Treasury, Budget Bureau and Social Security Board, with continuation of payroll taxes, when House Ways and Means Committee starts hearings soon. The committee is determined not to lay higher taxes now, and another bitter executive-legislative battle is shaping up.

Railroads are planning to ask the ICC for a blanket upward revision of all freight and passenger rates. Wartime tide of operations is gradually being reversed and downward trend in general business activity has placed all rail traffic on a declining curve, it is claimed. Meantime, wage increases, higher operating costs and necessity of replacing worn-out equipment and rails present serious problem requiring expansion of working capital, which carriers say can be met only through higher rate structures. A decided drop in traffic in 1946 is inevitable, they say, wiping out temporary gains of war period.



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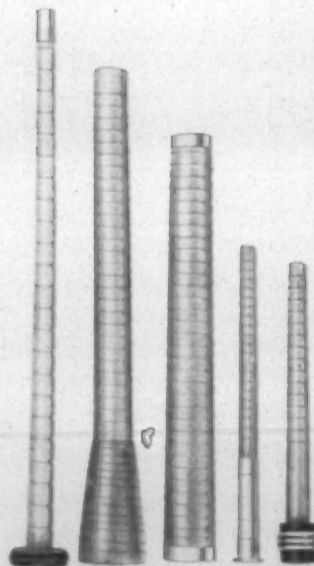
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